

Contents

Number 1 January 1998

1 Editorial Board, 1998

2 Guest Reviewers for *The Annals of Thoracic Surgery*

PRESIDENT'S PAGE

7 **Change**
George C. Kaiser, MD

PRESIDENTIAL ADDRESS

8 **It's Not Too Late to Wake Up:
Be Proactive and a Leader in the Field**
Kit V. Arom, MD

INVITED PRESENTATION

13 **Retooling Thoracic Surgery
Education for the 21st Century**
William A. Baumgartner, MD

ORIGINAL ARTICLES: CARDIOVASCULAR

17 **Should Angiographically
Disease-Free Saphenous Vein
Grafts Be Replaced at the Time of
Redo Coronary Artery Bypass Grafting?**
Inder D. Mehta, MD, Joy Weinberg, BS, Marc F. Jones, BS, George Tellides, MD, Gary S. Kopf, MD, Richard K. Shaw, MD, Barry L. Zaret, MD, and John A. Eleftheriades, MD

24 **Metabolic Detriment in Donor Heart Valves
Induced by Ischemia and Cryopreservation**
Jen-Her Lu, MD, PhD, Yen Chang, MD, Wen-Hu Hsu, MD, Betau Hwang, MD, Chuh-Khiun Chong, MS, Chi-Chin Wu, MS, Ping-Zen Yang, VD, PhD, and Hsung Hsing-Wen, PhD

28 **Topical Hypothermia: Ineffective
and Deleterious as Adjunct to
Cardioplegia for Myocardial Protection**
Dimitris J. Nikas, MD, Fuad M. Ramadan, MD, and John A. Eleftheriades, MD

32 **Phrenic Nerve Injury After Coronary
Artery Bypass Grafting: Will It Go Away?**
Michael G. Katz, MD, PhD, Rama Katz, MD, Arie Schachner, MD, and Amram J. Cohen, MD

36 **Mediastinitis After
Cardiovascular Operations:
A Case-Control Study of Risk Factors**
Catarina Y. Bitkover, MD, and Bengt Gårdlund, PhD

41 **Treatment of Mediastinitis: Early
Modified Robicsek Closure and
Pectoralis Major Advancement Flaps**
Ahmed El Gamel, FRCS, Nizar A. Yonan, FRCS, Rageb Hassan, FRCS, Mark T. Jones, FRCS, Colin S. Campbell, FRCS, Abdul K. Deiraniya, FRCS, and Robert A. M. Lawson, FRCS

Invited Commentary
Francis Robicsek, MD, PhD

48 **Demonstration of
Ischemia-Reperfusion Injury
Separate From Postoperative Infarction
in Coronary Artery Bypass Graft Patients**
Erik J. Fransen, MSc, Jos G. Maessen, MD, PhD, Wim T. Hermens, PhD, and Jan F. C. Glatz, PhD

54 **Early Detection of
Cardiac Damage With
Heart Fatty Acid-Binding
Protein After Cardiac Operations**
Ken Suzuki, MD, Yoshiki Sawa, MD, Keishi Kadoba, MD, Toshiki Takahashi, MD, Hajime Ichikawa, MD, Koji Kagisaki, MD, Toshihiro Ohata, MD, and Hikaru Matsuda, MD

59 **Computer-Controlled Cardiopulmonary
Bypass Increases Jugular Venous
Oxygen Saturation During Rewarming**
W. Alan C. Mutch, MD, Gerald R. Lefevre, MD, Darren B. Thiessen, BSc, Linda G. Girling, BSc, and R. Keith Warrian, MD

Invited Commentary
Kenneth M. Taylor, FRCS

66 **Aprotinin Enhances the
Endogenous Release of
Interleukin-10 After Cardiac Operations**
Gary E. Hill, MD, Robert P. Diego, BS, Alfred H. Stammers, CCP, Suzanne M. Huffman, CCP, and Roman Pohorecki, MD

- 70 **Influence of High- and Low-Dose Aprotinin on Activation of Hemostasis in Open Heart Operations**
Wulf Dietrich, MD, Karl Schöpf, MD, Michael Spannagl, MD, Marianne Jochum, PhD, Siegmund L. Braun, MD, and Hans Meisner, MD
Invited Commentary
John H. Lemmer, Jr, MD
- 79 **Concomitant Occlusive Disease of the Coronary Arteries and Great Vessels**
Thomas J. Takach, MD, George J. Reul, Jr, MD, Denton A. Cooley, MD, James J. Livesay, MD, J. Michael Duncan, MD, David A. Ott, MD, and Grady L. Hallman, MD
- 85 **Cardiac Operations in Patients With Cirrhosis**
John D. Klemperer, MD, Wilson Ko, MD, Karl H. Krieger, MD, Michelle Connolly, MD, Todd K. Rosengart, MD, Nasser K. Altorki, MD, Samuel Lang, MD, and O. Wayne Isom, MD
- 88 **The Role of Gender in Heart Transplantation**
Thomas W. Prendergast, MD, Satoshi Furukawa, MD, A. James Beyer III, MD, Barry J. Browne, MD, Howard J. Eisen, MD, and Valluvan Jeevanandam, MD
Invited Commentary
Carlos Blanche, MD
- 95 **Secular Trends in Nosocomial Bloodstream Infections in a 55-Bed Cardiothoracic Intensive Care Unit**
Steven M. Gordon, MD, Janet M. Serkey, RN, Thomas F. Keys, MD, Thomas Ryan, MD, Cynthia A. Fatica, RN, Steven K. Schmitt, MD, Judith A. Borsh, RN, Delos M. Cosgrove III, MD, and Jean-Pierre Yared, MD
- 101 **Thromboxane Production in Human Lung During Cardiopulmonary Bypass: Beneficial Effect of Aspirin?**
Eldad Erez, MD, Arie Erman, PhD, Eitan Snir, MD, Ehud Raanani, MD, Dan Abramov, MD, Jacqueline Sulkes, PhD, Geoffrey Boner, MD, and Bernardo A. Vidne, MD
- 107 **Effects of Depletion of Leukocytes and Platelets on Cardiac Dysfunction After Cardiopulmonary Bypass**
Yukio Chiba, MD, Kouichi Morioka, MD, Ryusuke Muraoka, MD, Akio Ihaya, MD, Tetsuya Kimura, MD, Takahiko Uesaka, MD, Takeshi Tsuda, MD, and Katsuhiko Matsuyama, MD
Invited Commentary
Gerald G. Davies, MB, BCh
- 115 **Effect of Pressure on Myocardial Function After 6-Hour Preservation With Blood Cardioplegia**
Gefeng Li, MD, John A. Sullivan, MD, John M. You, MD, and Richard I. Hall, MD
- 125 **Comprehensive Multimodality Blood Conservation: 100 Consecutive CABG Operations Without Transfusion**
Robert E. Helm, MD, Todd K. Rosengart, MD, Maureen Gomez, RN, John D. Klemperer, MD, William J. DeBois, CPP, Ferdinand Velasco, MD, Jeffrey P. Gold, MD, Nasser K. Altorki, MD, Samuel Lang, MD, Stephen Thomas, MD, O. Wayne Isom, MD, and Karl H. Krieger, MD
Invited Commentary
Robert L. Thurer, MD
- 137 **The CarboMedics Valve: Experience With 1,049 Implants**
José M. Bernal, MD, José M. Rabasa, MD, Francisco Gutierrez-Garcia, MD, Carlos Morales, MD, J. Francisco Nistal, MD, and José M. Revuelta, MD
- 144 **Induction of Tolerance in Rodent Cardiac Allotransplantation Using an MHC Class I-Derived Peptide and Cyclosporin A**
Saqib Masroor, MD, Silviu Itescu, MD, John H. Artrip, MD, Oktavijan P. Minanov, MD, Roland Buelow, PhD, and Robert E. Michler, MD
Invited Commentary
Anthony P. Monaco, MD
- 149 **Right-Sided Maze Procedure for Right Atrial Arrhythmias in Congenital Heart Disease**
David A. Theodoro, MD, Gordon K. Danielson, MD, Co-burn J. Porter, MD, and Carole A. Warnes, MD
- 155 **Effects of Oncotic Pressure and Hematocrit on Outcome After Hypothermic Circulatory Arrest**
Toshiharu Shin'oka, MD, Dominique Shum-Tim, MD, Peter C. Laussen, MBBS, Sophia M. Zinkovsky, MD, Hart G. W. Lidov, MD, PhD, Adre du Plessis, MD, and Richard A. Jonas, MD
- 165 **Minimally Invasive Cardiac Surgical Techniques in the Closure of Ventricular Septal Defect: An Alternative Approach**
Pyng Jing Lin, MD, Chau-Hsiung Chang, MD, Jaw-Ji Chu, MD, Hui-Ping Liu, MD, Feng-Chun Tsai, MD, Wen-Jen Su, MD, Min-Wen Yang, MD, and Peter P. C. Tan, MD
Invited Commentary
John W. Hammon, Jr, MD
- 171 **One-Lung Fontan Operation: Hemodynamics and Surgical Outcome**
Christopher H. Zachary, MD, Marshall L. Jacobs, MD, Sotiria Apostolopoulou, MD, and Mark A. Fogel, MD

ORIGINAL ARTICLES: GENERAL THORACIC

- 176 **Prognosis of Adenocarcinoma Arising in Barrett's Esophagus**
Steven J. Hoff, MD, John L. Sawyers, MD, Charles D. Blanke, MD, Hak Choy, MD, and James R. Stewart, MD
Invited Commentary
F. Henry Ellis, Jr, MD, PhD
- 182 **Management of Major Tracheobronchial Injuries: A 28-Year Experience**
Mario M. Rossbach, MD, Scott B. Johnson, MD, Miguel A. Gomez, MD, Edward Y. Sako, MD, PhD, O. LaWayne Miller, MD, and John H. Calhoon, MD
- 187 **Controlled Reperfusion Protects Lung Grafts During a Transient Early Increase in Permeability**
Moninder S. Bhabra, FRCS, David N. Hopkinson, MD, Trudi E. Shaw, Natasha Onwu, BSc, and Timothy L. Hooper, MD
- 193 **MRI as an Alternative to CT-Guided Biopsy of Adrenal Masses in Patients With Lung Cancer**
Lawrence H. Schwartz, MD, Michelle S. Ginsberg, MD, Michael E. Burt, MD, PhD, Karen T. Brown, MD, George I. Getrajdman, MD, and David M. Panicek, MD
- 198 **The Role of Open Lung Biopsy in the Management and Outcome of Patients With Diffuse Lung Disease**
Mordechai R. Kramer, MD, Neville Berkman, MBBCh, Bella Mintz, MD, Simon Godfrey, MD, PhD, Milton Saute, MD, and Gail Amir, MBBCH
- 203 **Resection With Curative Intent After Endoscopic Treatment of Airway Obstruction**
Giuliano Daddi, MD, Francesco Puma, MD, Nicola Avenia, MD, Stefano Santoprete, MD, Sandro Casadei, MD, and Moira Urbani, MD
- 208 **Neoadjuvant and Adjuvant Trials in Non-Small Cell Lung Cancer**
Lawrence H. Einhorn, MD
- 212 **Survival in Resected Stage I Lung Cancer With Residual Tumor at the Bronchial Resection Margin**
Repke J. Snijder, MD, Aart Brutel de la Rivière, MD, PhD, Hans J. J. Elbers, MD, and Jules M. M. van den Bosch, MD
- 217 **Bovine Pericardium Versus Bovine Collagen to Buttress Staples for Lung Reduction Operations**
Richard J. Fischel, MD, PhD, and Robert J. McKenna, Jr, MD

- 220 **"Incomplete Resection" in Non-Small Cell Lung Cancer: Need for a New Definition**
Yves Lacasse, MD, Heiner C. Bucher, MD, Eric Wong, MD, Lauren Griffith, MSc, Stephen Walter, PhD, Robert J. Ginsberg, MD, and Gordon H. Guyatt, MD, for the Canadian Lung Oncology Group
- 227 **Pulmonary Retransplantation: Predictors of Graft Function and Survival in 230 Patients**
Richard J. Novick, MD, Larry W. Stitt, MSc, Khaled Al-Kattan, MD, Walter Klepetko, MD, Hans-Joachim Schäfers, MD, Jean-Pierre Duchatelle, MD, Asghar Khaghani, MD, Robert L. Hardesty, MD, G. Alexander Patterson, MD, and Magdi H. Yacoub, MD, for the Pulmonary Retransplant Registry

SPECIAL REPORT

- 235 **Stentless Aortic Bioprostheses: Compelling Data From the Second International Symposium**
Stephen Westaby, FRCS, Hans A. Huysmans, MD, and Tirone E. David, MD

CASE REPORTS

- 241 **Repair of Ruptured Anastomotic Aneurysm: Elephant Trunk Technique After Endovascular Covered Stents**
Masahiko Ezure, MD, Yutaka Kotsuka, MD, Akira Furuse, MD, Motohiro Kawauchi, MD, Tadasu Kohno, MD, and Hiroshi Kubota, MD
Invited Commentary
D. Craig Miller, MD
- 243 **Postsegmentectomy Pseudotumor of the Lung**
Jerome T. Grismer, MD, Robert F. Schaefer, MD, and Raymond C. Read, MD
- 246 **Esophageal Compression by the Aorta After Arterial Switch**
Doff B. McElhinney, MS, V. Mohan Reddy, MD, Gautham P. Reddy, MD, MPH, Charles B. Higgins, MD, and Frank L. Hanley, MD
- 248 **Should We Address the Course as Well as the Origin of a Translocated Anomalous Coronary Artery?**
Michael D. Black, MD, Brian W. McCrindle, MD, and Robert M. Freedom, MD
- 250 **Two-Stage Correction of Transposition of Great Arteries With Complete Atrioventricular Canal**
Kisaburo Sakamoto, MD, Lorenzo Galletti, MD, Anita Touchot, MD, Jean Dominique Piot, MD, Jacqueline Bruniaux, MD, and Claude Planche, MD

- 252 **Four Multiple Primary Malignant Neoplasms of the Aerodigestive Tract**
Ara Keshishian, MD, Fazlul H. Sarkar, PhD,
George Kucyj, MD, and Jorge O. Just-Viera, MD
- 254 **Branch Retinal Artery Occlusion From a Retained Left Atrial Catheter 21 Years After Operation**
Jonathan J. Drummond-Webb, FCS(SA), Paula
M. Bokesch, MD, Makram R. Ebeid, MD, Daniel
J. Murphy, MD, George E. Sarris, MD, and Roger
B. B. Mee, FRACS
- 255 **Extended Aortic Arch Atherectomy**
Ali Khaki, MD, Pasaca S. Ravichandran, MD,
Steven Kelly, MD, Hugh L. Gately, MD, Albert
Starr, MD, and H. Storm Floten, MD
- 257 **Sequestration of the Lung Arising From the Circumflex Coronary Artery**
R. Thomas Temes, MD, William A. Talbot, MD,
Ysela M. Carrillo, MD, Gregory M. Keck, MD,
and Jorge A. Wernly, MD
- 259 **Hybrid Myocardial Revascularization After Previous Left Pneumonectomy**
Hooman Soltanian, MD, John H. Sanders, Jr,
MD, John C. Robb, MD, and Charles A. S.
Marrin, MB, BS
- 260 **Surgical Palliation of Truncus Arteriosus With Mitral Atresia and Hypoplastic Left Ventricle**
Erik C. Michelfelder, MD, Vincent R. Zales, MD,
and Marshall L. Jacobs, MD
- 263 **Resection of a Pulmonary Malignancy Invading the Intrapericardial Inferior Vena Cava**
John R. Roberts, MD, Patti S. Abbott, PA, W. Roy
Smythe, MD, and Joseph E. Bavaria, MD
- 265 **Parosteal Osteosarcoma From a Rib**
Aminah Jatoi, MD, Maria L. Garcia-Moliner, MD,
and Benedict D. T. Daly, MD
- 267 **Transesophageal Echocardiography in an Operation for Pulmonary Arteriovenous Malformation**
Aubrey A. Almeida, MBBS, Helen L. Thomson,
FRACP, Darryl J. Burstow, FRACP, and Robert
K. W. Tam, FRACS
- 268 **Catastrophic Transcatheter Baffle Fenestration for Failing Fontan Physiology**
Helena T. Henneveld, MD, Paul Hutter, MD,
Francois J. Hitchcock, MD, and Narayanswami
Sreeram, MD

HOW TO DO IT

- 271 **Right Parasternal Incision: A Uniform Minimally Invasive Approach for Valve Operations**
Robert R. Lazzara, MD, and Francis E. Kidwell,
BS
- 273 **Limited Lower Sternotomy for Minimally Invasive Mitral Valve Replacement**
R. Unnikrishnan Nair, FRCS, and David A. C.
Sharpe, FRCS
- 275 **Minimally Invasive Aortic Valve Replacement via Partial Sternotomy**
Robert K. W. Tam, FRACS, and Aubrey A.
Almeida, MB, BS
- 277 **Supravalvular Aortic Stenosis: A Modification of Extended Aortoplasty**
John B. Steinberg, MD, Ralph E. Delius, MD, and
Douglas M. Behrendt, MD
- Invited Commentary*
Donald B. Doty, MD
- 280 **Repair of Complex Unroofed Coronary Sinus by Anastomosis of Left to Right Superior Vena Cava**
Jacques A. M. van Son, MD, PhD, Jörg Hamsch,
MD, and Friedrich W. Mohr, MD, PhD
- 282 **Fissureless Lobectomy**
R. Thomas Temes, MD, Christopher D. Willms,
MD, Santiago A. Endara, MD, and Jorge A.
Wernly, MD

OUR SURGICAL HERITAGE

- 285 **William E. Adams: Thomas Mann and *The Magic Mountain***
Andreas P. Naef, MD

CURRENT REVIEW

- 288 **Diagnosis and Management of Traumatic Aorto-Right Ventricular Fistulas**
Louis E. Samuels, MD, Marla S. Kaufman, BA,
Jose Rodriguez-Vega, MD, Rohinton J. Morris,
MD, and Stanley K. Brockman, MD

KEY REFERENCES

- 293 **Lung Transplantation**
Sudhir Sundaesan, MD, and Joel D. Cooper,
MD

CTSNet

- 295 **Grand Rounds: On Location at CTSNet**
John R. Doty, MD, John R. Liddicoat, MD, Peter
S. Greene, MD, and Donald B. Doty, MD

CORRESPONDENCE

- 297 **The Surgical Meeting as Infomercial**
Alan D. Muskett, MD
- 298 **"Low SVR Syndrome" or SIRS After Cardiac Operations?**
Paul S. Myles, FANZCA, and Bruce B. Davis, FRACS
- 298 **Mitral Valve Disease Associated With Use of Anorexigenic Medications**
Tsung O. Cheng, MD
- 299 **Correlates of Survival in Patients With Postinfarction Ventricular Septal Defect**
Hans D. de Boer, MD, Massimo A. Mariani, MD, PhD, and Willem J. de Boer, MD
- Reply*
James E. Lowe, MD, and Stanley A. Gall, Jr, MD
- 300 **Postthoracotomy Pain**
Jonathan Richardson, FRCA, Tracy Smith, RGN, Achilles Tsiamis, FRCS, and Rajesh D. Shah, FRCS
- Reply*
Georg M. Salzer, MD
- 302 **Thoracic Castleman's Disease: Implications for Resection**
Avni Pandya, BS, Fritz J. Baumgartner, MD, Dat Nguyen, MD, and Bassam O. Omari, MD
- Reply*
Joo Hyun Kim, MD
- 303 **Thermal Coronary Angiography in CABG**
Francis Robicsek, MD, PhD
- Reply*
Friedrich W. Mohr, MD, PhD
- 304 **Axillary-Coronary Bypass**
Alan S. Coulson, MD, and Shahroukh Bakhshay, MD
- Reply*
Wade L. Knight, MD
- 305 **LIMA Harvest for MIDCABG: Which Approach to Use?**
Anthony P. C. Yim, MD, and M. Bashar Izzat, FRCS
- Reply*
Erik W. L. Jansen, MD, and Arno P. Nierich, MD

- 306 **Accidental Hyperperfusion During Cardiopulmonary Bypass: Suggested Safety Features**
Deepak K. Tempe, MD, and Sudarshan K. Khanna, MCh

CORRECTION

- 306 Savage RM, Lytle BW, Aronson S, et al. Intraoperative Echocardiography Is Indicated in High-Risk Coronary Artery Bypass Grafting. *Ann Thorac Surg* 1997;64: 368-74

ANNOUNCEMENTS

- A-47, 48 **Information for Authors**
- A-49 **Guidelines for the Submission of Electronic Manuscripts**
- A-53-55 **Events of Interest**
- A-57 **Forthcoming Articles**
- 23 **The Society of Thoracic Surgeons: Thirty-fourth Annual Meeting**
- 47 **Important Announcement for Authors**
- 106 **Notice From the American Board of Thoracic Surgery**
- 114 ***The Annals of Thoracic Surgery* Cumulative Index**
- 175 **TSFRE Continuing Education Programs**
- 211 **Announcement**
- 226 **Important Announcement**
- 270 **Thymectomy Task Force Formed by the Medical Advisory Board of the Myasthenia Gravis Foundation of America**
- 296 **Discussion Groups on the Internet**
- A-59-61 **Classified Advertisements**
- A-70 **Index to Advertisers**

SPECIAL PRESENTATION

- 307 **Recent Developments and Evolving Techniques of Mitral Valve Reconstruction**
Frank C. Spencer, MD, Aubrey C. Galloway, MD, Eugene A. Grossi, MD, Greg H. Ribakove, MD, Julie Delianides, RN, F. Gregory Baumann, PhD, and Stephen B. Colvin, MD

ORIGINAL ARTICLES:
GENERAL THORACIC

- 314 **Lung Reduction Operation and Resection of Pulmonary Nodules in Patients With Severe Emphysema**
Joseph J. DeRose, Jr, MD, Michael Argenziano, MD, Nabeel El-Amir, MD, Patricia A. Jellen, MSN, Lyall A. Gorenstein, MD, Kenneth M. Steinglass, MD, Byron Thomashow, MD, and Mark E. Ginsburg, MD
- 319 **Video-Assisted Thoracoscopic Surgery for Fibrinopurulent Pleural Empyema in 67 Patients**
Heinz Striffeler, MD, Matthias Gugger, MD, Vinzenz Im Hof, MD, Andreas Cerny, MD, Markus Furrer, MD, and Hans-Beat Ris, MD
- 324 **Efficiency of Video-Assisted Thoracic Surgery for Primary and Secondary Spontaneous Pneumothorax**
Bernward Passlick, MD, Christine Born, Karl Häussinger, MD, and Olaf Thetter, MD
- 328 **Thoracoscopic Operations on Reoperated Chests**
Anthony P. C. Yim, MD, Hui-Ping Liu, MD, Stephen R. Hazelrigg, MD, M. Bashar Izzat, FRCS, Alex L. K. Fung, BA, Theresa M. Boley, MSN, and Mitchell J. Magee, MD
- 331 **Adrenalectomy for a Solitary Adrenal Metastasis From Lung Cancer**
Henri L. Porte, MD, Didier Roumilhac, MD, Jean-Pierre Graziana, MD, Luciano Eraldi, MD, Charlotte Cordonier, MD, Philippe Puech, MD, and Alain J. Wurtz, MD
- 336 **Thoracoscopic Lobectomy With Endoarterial Vascular Control: An Experimental Study in Swine**
A. Alan Conlan, MD, Charles Hsi, MD, Babs R. Soller, PhD, Janice M. Belleisle, BS, and Thomas J. Vander Salm, MD

ORIGINAL ARTICLES:
CARDIOVASCULAR

- 340 **Randomized, Double-Blind Trial of Inhaled Nitric Oxide in LVAD Recipients With Pulmonary Hypertension**
Michael Argenziano, MD, Asim F. Choudhri, BS, Nader Moazami, MD, Eric A. Rose, MD, Craig R. Smith, MD, Howard R. Levin, MD, Arthur J. Smerling, MD, and Mehmet C. Oz, MD
- Invited Commentary*
Naoki Yahagi, MD
- 346 **The Role of Spinal Angiography in Operations on the Thoracic Aorta: Myth or Reality?**
Markus K. Heinemann, MD, Friedhelm Brassel, MD, Thomas Herzog, MD, Christoph Dresler, MD, Hartmut Becker, MD, and Hans Georg Borst, MD
- 352 **The Platelet Thrombin Receptor and Postoperative Bleeding**
Victor A. Ferraris, MD, PhD, Suellen P. Ferraris, PhD, Amandeep Singh, Wendy Fuhr, MD, Darren Koppel, MD, Daniel McKenna, Evelio Rodriguez, MD, and Herbert Reich, MD
- 359 **Operation for Infective Endocarditis: Results After Implantation of Mechanical Valves**
Robert Bauernschmitt, MD, Heinz G. Jakob, MD, Christian-Friedrich Vahl, MD, Rüdiger Lange, MD, and Siegfried Hagl, MD
- 365 **Influence of Ascending Versus Descending Balloon Counterpulsation on Bypass Graft Blood Flow**
Richard Gitter, MD, Chris M. Cate, MD, Kenneth Smart, MD, and G. Kimble Jett, MD
- 371 **Prophylactic Tranexamic Acid and ϵ -Aminocaproic Acid for Primary Myocardial Revascularization**
Jean-François Hardy, MD, Sylvain Bélisle, MD, Charles Dupont, MSc, François Harel, MSc, Danielle Robitaille, MD, Micheline Roy, RT, and Lyne Gagnon, RT
- 377 **Late Outcome of Coronary Artery Bypass Grafting in Young Versus Older Patients**
Isabella Rohrer-Gubler, MD, Urs Niederhauser, MD, and Marko I. Turina, MD

- 383 Increased Risk and Decreased Morbidity of Coronary Artery Bypass Grafting Between 1986 and 1994**
Fawzy G. Estafanous, MD, Floyd D. Loop, MD, Thomas L. Higgins, MD, Samuel Tekyi-Mensah, PhD, Bruce W. Lytle, MD, Delos M. Cosgrove III, MD, Margaret Roberts-Brown, MBA, and Norman J. Starr, MD
- 390 Superior Recovery of Hypertrophied Rat Myocardium After Cardioplegic Arrest**
Seth D. Blank, MD, Joseph A. Lahorra, MD, Robert S. McDonald, MD, Alvin G. Denenberg, MS, James S. Titus, David F. Torchiana, MD, Willard M. Daggett, MD, and Gillian A. Geffin, MB, BS
- 397 Preoperative Assessment of Coronary Artery Disease in Aortic Stenosis: A Dipyridamole Echocardiographic Study**
Stefano Maffei, MD, Monica Baroni, MD, Marco Terrazzi, MD, Fabrizio Paoli, MD, Paolo Ferrazzi, MD, and Andrea Biagini, MD
- 403 Echocardiography Allows Safer Venous Cannulation During Excision of Large Right Atrial Masses**
John A. Rousou, MD, Dennis A. Tighe, MD, Robert D. Rifkin, MD, Richard M. Engelman, MD, Joseph E. Flack III, MD, David W. Deaton, MD, Charles A. Anene, MD, and Eugene A. Fernandes, MD
- 407 Minimal Access Surgical Techniques in Coronary Artery Bypass Grafting for Triple-Vessel Disease**
Pyng Jing Lin, MD, Chau-Hsiung Chang, MD, Jaw-Ji Chu, MD, Hui-Ping Liu, MD, Feng-Chun Tsai, MD, Fen-Chiung Lin, MD, Cheng-Wen Chiang, MD, and Peter P. C. Tan, MD
- 413 Port-Access Coronary Artery Bypass Grafting With the Use of Cardiopulmonary Bypass and Cardioplegic Arrest**
Hermann Reichensperner, MD, PhD, Vassilios Guliemos, MD, Jaqueline Wunderlich, MD, Markus Dangel, MD, Florian M. Wagner, MD, Mario F. Pompili, MD, John H. Stevens, MD, Joseph Ludwig, MD, Werner G. Daniel, MD, and Stephan Schöler, MD
Invited Commentary
Irving L. Kron, MD
- 420 Reduction of the Inflammatory Response in Patients Undergoing Minimally Invasive Coronary Artery Bypass Grafting**
Y. John Gu, MD, PhD, Massimo A. Mariani, MD, PhD, Willem van Oeveren, PhD, Jan G. Grandjean, MD, PhD, and Piet W. Boonstra, MD, PhD
- 425 Effect of Anticoagulation Protocol on Outcome in Patients Undergoing CABG With Heparin-Bonded Cardiopulmonary Bypass Circuits**
Gabriel S. Aldea, MD, Paul O'Gara, CCP, Oz M. Shapira, MD, Patrick Treanor, CCP, Ashraf Osman, MD, Eva Patalis, MD, Charles Arkin, MD, Rhea Diamond, PhD, Viken Babikian, MD, Harold L. Lazar, MD, and Richard J. Shemin, MD
- 434 Left Ventricular Volume Predicts Postoperative Course in Patients With Ischemic Cardiomyopathy**
Atsushi Yamaguchi, MD, Takashi Ino, MD, Hideo Adachi, MD, Seiichiro Murata, MD, Hitoshi Kamio, MD, Masahiko Okada, MD, and Jun-ichi Tsuboi, MD
- 439 Increased Myocardial Tumor Necrosis Factor- α in a Crystalloid-Perfused Model of Cardiac Ischemia-Reperfusion Injury**
Daniel R. Meldrum, MD, Joseph C. Cleveland, Jr, MD, Brian S. Cain, MD, Xianzhong Meng, MD, PhD, and Alden H. Harken, MD
- 444 Minimally Invasive Coronary Artery Bypass Grafting Using the Right Gastroepiploic Artery**
Sari Voutilainen, MD, Kalervo Verkkala, MD, PhD, Antero Järvinen, MD, PhD, Markku Kaarne, MD, Pekka Keto, MD, PhD, Petri Voutilainen, MD, and Severi Mattila, MD, PhD
- 449 Retrograde Coronary Perfusion: Effects on Iatrogenic Edema and Diastolic Properties**
David A. Dean, MD, Chao-Xiang Jia, MD, Santos E. Cabreriza, MBA, Pablo F. Soto, MD, David G. Rabkin, BA, Michael J. Sardo, BA, Natalya Chalikh, BA, and Henry M. Spotnitz, MD
- 454 Anesthetic Technique Influences Brain Temperature During Cardiopulmonary Bypass in Dogs**
C. Thomas Wass, MD, David G. Cable, MD, Hartzell V. Schaff, MD, and William L. Lanier, MD
Invited Commentary
John M. Murkin, MD
- 461 Surgical Indications and Timing of Repair of Traumatic Ruptures of the Thoracic Aorta**
Roberto Galli, MD, Davide Pacini, MD, Roberto Di Bartolomeo, MD, Rossella Fattori, MD, Bruno Turinetti, MD, Giovanni Grillone, MD, and Angelo Pierangeli, MD

- 465 **Abciximab and Excessive Bleeding in Patients Undergoing Emergency Cardiac Operations**
James S. Gammie, MD, Marco Zenati, MD, Robert L. Kormos, MD, Brack G. Hattler, MD, PhD, Lawrence M. Wei, MD, Ronald V. Pellegrini, MD, Bartley P. Griffith, MD, and Cornelius M. Dyke, MD
- 470 **LVAD Power Delivery: A Percutaneous Approach to Avoid Infection**
Robert Jarvik, MD, Stephen Westaby, FRCS, Takahiro Katsumata, MD, David Pigott, MD, and Rhys D. Evans, MD
- 474 **Effects of an Angiotensin II Antagonist on Ischemic and Nonischemic Isolated Rat Hearts**
Yosef Paz, MD, Jacob Gurevitch, MD, Inna Frolkis, MD, PhD, Menachem Matsa, MD, Amir Kramer, MD, Chaim Locker, MD, Rephael Mohr, MD, and Gad Keren, MD
- 480 **Inflammatory Mediators in Adults Undergoing Cardiopulmonary Bypass: Comparison of Centrifugal and Roller Pumps**
Saeed Ashraf, FRCS(C/Th), John Butler, FRCS(I), Yi Tian, MCh, Dahlia Cowan, BSc, Simon Lintin, FRCA, Nigel R. Saunders, FRCS, Kevin G. Watterson, FRACS, and Paul G. Martin, PhD
- 485 **Cosgrove-Edwards Mitral Ring Dynamics Measured With Transesophageal Three-Dimensional Echocardiography**
Anita Dall'Agata, MD, Meindert A. Taams, MD, PhD, Paolo M. Fioretti, MD, PhD, Jos R. T. C. Roelandt, MD, PhD, and Lex A. Van Herwerden, MD, PhD
- 491 **Repair of Thoracoabdominal Aortic Aneurysms in Octogenarians**
Leonard N. Girardi, MD, and Joseph S. Coselli, MD
- 496 **The Ross Operation in Children: 10-Year Experience**
Ronald C. Elkins, MD, Christopher J. Knott-Craig, MD, Kent E. Ward, MD, and Mary M. Lane, PhD
- 503 **Acute Changes in Preload, Afterload, and Systolic Function After Superior Cavopulmonary Connection**
Mary T. Donofrio, MD, Marshall L. Jacobs, MD, Thomas L. Spray, MD, and Jack Rychik, MD
Invited Commentary
Andrew N. Redington, MD
- 509 **Surgical Anatomy of Aorto-Left Ventricular Tunnel**
Siew Yen Ho, PhD, Michaela Muriago, MD, Andrew C. Cook, BSc, Gaetano Thiene, MD, and Robert H. Anderson, MD
- 515 **Side-to-Side Aorto-Gore-Tex Central Shunt**
Richard N. Gates, MD, Hillel Laks, MD, and Keith Johnson, BS
- 517 **Trends in the Management of Truncal Valve Insufficiency**
Doff B. McElhinney, MS, V. Mohan Reddy, MD, Hiranya A. Rajasinghe, MD, Bassem N. Mora, MD, Norman H. Silverman, MD, and Frank L. Hanley, MD
Invited Commentary
Edward L. Bove, MD
- 525 **Complement and Contact Activation During Cardiovascular Operations in Infants**
Josef Sonntag, MD, Ingo Dähnert, MD, Brigitte Stiller, MD, Roland Hetzer, MD, PhD, and Peter E. Lange, MD, PhD
-
- CASE REPORTS**
- 532 **Reconstruction of Supravalvar Aortic Stenosis With Autologous Pulmonary Artery**
Zohair Al-Halees, FRCSC, Ganga Prabhakar, FRCS, and Omar Galal, MD, PhD
- 534 **Resection of a Chest Chondrosarcoma Invading the Spine and the Aorta**
Philippe Noirhomme, MD, Yves d'Udekem, MD, Everard Munting, MD, Gebrine El Khouury, MD, Yves Humblet, MD, and Robert A. Dion, MD
- 535 **Aneurysm of the Left Sinus of Valsalva Producing Aortic Valve Regurgitation and Myocardial Ischemia**
Yoshiharu Takahara, MD, Yoshio Sudo, MD, Tooru Sunazawa, MD, and Nobuyuki Nakajima, MD
- 537 **Tricuspid Valve Repair in a Mountaineer**
Adrian J. Marchbank, FRCS, Dinah V. Parums, MRCPPath, and Stephen Westaby, FRCS
- 539 **An Unusual Cause of Hemoptysis**
Beatrix E. Urbat, MD, John R. Haapaniemi, DO, Bruce T. Weyhing, MD, and Frank A. Baciewicz, Jr, MD
- 540 **Tricuspid Valve Closure for Neonatal Ebstein's Anomaly**
Masato Endo, MD, Mikio Ohmi, MD, Kaori Sato, MD, Takashi Tanaka, MD, Hideyuki Kakizawa, MD, and Koichi Tabayashi, MD

- 542 **A Late Complication of Tuberculous Pericarditis After Partial Pericardial Resection**
Anita K. Gregory, MD, Cliff P. Connery, MD, and Constantinos E. Anagnostopoulos, MD
- 544 **Preoperative Identification and Operative Management of Intraatrial Extension of Lung Tumors**
Martin J. Heslin, MD, Ephraim S. Casper, MD, Patrick Boland, MD, Jeffrey P. Gold, MD, and Michael E. Burt, MD, PhD
- 546 **Simultaneous Total Aortic Replacement Without a Sternotomy Incision**
Norihiro Shiiya, MD, Keishu Yasuda, MD, Toshifumi Murashita, MD, Yoshiro Matsui, MD, and Shigeyuki Sasaki, MD
- 548 **Pulmonary Vein Injury Through Repetitive Clip Friction: An Unusual Cause of Hemothorax**
Horia Sirbu, MD, Bernhard Herse, MD, Thomas Busch, MD, and Harald Dalichau, MD
- 550 **Right Ventricular Obstruction by Tricuspid Pouch in Simple Ventricular Septal Defect**
Yukihiro Kaneko, MD, Hideo Okabe, MD, Nobuhiro Nagata, MD, Shinya Kanemoto, MD, and Shin-ichi Yamada, MD
- 551 **Isolated Right Ventricular Hypoplasia: Intraoperative Balloon Occlusion Test**
Kazutomo Goh, MD, Tadahiro Sasajima, MD, Masashi Inaba, MD, Hiroshi Yamamoto, MD, Eiji Kawashima, MD, and Yoshihiko Kubo, MD
- 553 **Partial Breast Necrosis After MIDCABG via Small Anterolateral Thoracotomy**
Yaron Har-Shai, MD, Roni Ammar, MD, Amir Taran, MD, Ami Barak, MD, Shraga Mayblum, MD, and Gideon Uretzky, MD
- 555 **Intraaortic Balloon Pump After Treatment of Anomalous Origin of Left Coronary Artery**
Marco Pozzi, MD, Gaetano Santoro, MD, and Seshadri Makundan, MS
- 557 **Percutaneous Placement of Tracheal T Tube**
Douglas E. Wood, MD, Brandon Reynolds, MD, and Eric Vallières, MD
- 559 **Primary Malignant Melanoma of the Trachea**
Ignacio G. Duarte, MD, Anthony A. Gal, MD, and Kamal A. Mansour, MD
- 561 **Coronary Artery Aneurysm Repaired With Saphenous Vein Patch Plasty**
Yukinori Moriyama, MD, Kouichi Hisatomi, MD, Shinji Shimokawa, MD, Akira Taira, MD, and Shinichi Arima, MD
-
- HOW TO DO IT**
-
- 563 **Autoblood Plus OK432 Pleurodesis With Open Drainage for Persistent Air Leak After Lobectomy**
Hiroyasu Yokomise, MD, Kiyoshi Satoh, MD, Nobuhiro Ohno, MD, and Koiti Tamura, MD
- 566 **Leaflet's Free Edge Suspension for Correction of Aortic Insufficiency Associated With Ventricular Septal Defect**
Afksendiyos Kalangos, MD, PhD, Maurice Beghetti, MD, Nicolas Murith, MD, and Bernard Faidutti, MD
- Invited Commentary*
Tirone E. David, MD
- 569 **Right-Sided Partial Sternotomy for Minimally Invasive Valve Operation: "Open Door Method"**
Hitoshi Kasegawa, MD, Tomoki Shimokawa, MD, Yasushi Matsushita, MD, Satoshi Kamata, MD, Takao Ida, MD, and Mitsuhiko Kawase, MD
- 571 **Modified Minimally Invasive Technique for Greater Saphenous Vein Harvesting**
Mark S. Slaughter, MD, Dawn C. Gerchar, PA-C, and Patroklos S. Pappas, MD
- 573 **Full-Spectrum Cardiac Surgery Through a Minimal Incision: Mini-Sternotomy (Lower Half) Technique**
Donald B. Doty, MD, Gregory B. DiRusso, MD, and John R. Doty, MD
-
- OUR SURGICAL HERITAGE**
-
- 578 **The Mask of Thomas Mann (1875-1955): Medical Insights and Last Illness**
Richard Carter, MD
-
- CURRENT REVIEW**
-
- 586 **Adenosine Prevents K⁺-Induced Ca²⁺ Loading: Insight Into Cardioprotection During Cardioplegia**
Aleksandar Jovanović, MD, Jose R. Lopez, MD, Alexey E. Alekseev, PhD, Win K. Shen, MD, and Andre Terzic, MD
-
- UPDATE**
-
- 592 **Four Years' Experience With Fibrin Sealant in Thoracic and Cardiovascular Surgery**
William D. Spotnitz, MD

CTSNet

- 594 **Organizational Reengineering Using CTSNet**
Paul T. Sergeant, MD, PhD

CORRESPONDENCE

- 596 **Open Heart Operations After Renal Transplantation**
Emin Tireli, MD, Ali Kubilay Korkut, MD, Cevahir Haberal, MD, Korkut Bostanci, MD, and Ertan Onursal, MD

- 596 **Reimplantation of Infected Antiarrhythmic Implantable Devices**
Erkmen Böke, MD, Mustafa Yilmaz, MD, and Murat Özkan, MD

Reply

J. Ernesto Molina, MD, PhD

- 597 **The Autopsy: Still Important**
Tsung O. Cheng, MD

- 598 **An Unusual Type of Total Anomalous Pulmonary Venous Connection**
Kevin W. Lobdell, MD, Henry L. Walters III, MD, and Mehdi Hakimi, MD

- 598 **Size Distribution of Aortic Emboli**
Richard P. Spencer, MD, PhD

- 599 **Clinical Experience With Thoracoscopic TMR Versus Minimally Invasive Approach**
Josef G. Vincent, MD

Reply

Brian J. deGuzman, MD, and Lawrence H. Cohn, MD

- 600 **Teletronics 330-801 Lead Extraction**
Victor Parsonnet, MD

- 601 **Retrosternal Fat Pad for Prevention of Suppurative Sternitis**
Nandkishore Kapadia, MD, and Pierantonio A. Russo, MD

Reply

Hugh S. Paterson, FRACS

- 601 **Aortic Valve Repair With Bovine Pericardium**
Zohair Al-Halees, MD, Begonia Gometza, MD, and Carlos M. G. Duran, MD, PhD

Reply

James L. Monro, FRCS

- 602 **Left Ventricular Aneurysm Repair**
Noel H. Fishman, MD

Reply

Oz M. Shapira, MD

- 603 **Central Venous Pressure Lines in Children Undergoing Heart Operations**
José V. Nozar, MD, and Carlos E. Zuniga, MD

- 603 **Paraplegia Caused by Aortic Dissection After Intraaortic Balloon Pump Assist**
Sven Beholz, MD, Joachim Braun, MD, Knut Ansorge, MD, Hans-Georg Wollert, MD, and Lothar Eckel, MD

Reply

Aquilino Hurlé, MD, Patricio Llamas, MD, Juan Meseguer, MD, and Juan A. Casillas, MD, PhD

- 604 **Aortic Stenosis Bicuspid Valve Repair Using Pericardium**
Edward A. Freitas, MD

Reply

M. Adebambo Kadri, MD, Hagop Hovaguimian, MD, and Albert Starr, MD

REPORT

- 606 **1997 Meeting, Southern Thoracic Surgical Association**

REVIEW OF RECENT BOOKS

- 514 **Pathology of Lung Tumors**, edited by Bryan Corrin
Thomas W. Shields, MD

ANNOUNCEMENTS

- A-31, 32 **Information for Authors**
- A-33 **Guidelines for the Submission of Electronic Manuscripts**
- A-34-36 **Events of Interest**
- A-37 **Forthcoming Articles**
- 351 **Important Announcement for Authors**
- 358 **The Thoracic Surgery Foundation for Research and Education: Continuing Education Programs in Health Care Policy**
- 370 **Important Announcement**
- 402 **Thymectomy Task Force Formed by the Medical Advisory Board of the Myasthenia Gravis Foundation of America**
- 412 **The Annals of Thoracic Surgery Cumulative Index**

| | |
|----------|--|
| 448, 479 | Notice From the American Board of Thoracic Surgery |
| 502 | Announcement |

| | |
|---------|-----------------------------------|
| 593 | Discussion Groups on the Internet |
| A-39-40 | Classified Advertisements |
| A-44 | Index to Advertisers |

Number 3 March 1998

607 Editorial Board Changes

ORIGINAL ARTICLES:
CARDIOVASCULAR

- 608 Are Circulating Adhesion Molecules Specifically Changed in Cardiac Surgical Patients?
Joachim Boldt, MD, Bernd Kumle, MD, Michael Papsdorf, and Gunter Hempelmann, MD

- 615 Minimally Diluted Tepid Blood Cardioplegia
Nobuhiko Hayashida, MD, Tadashi Isomura, MD, Tohru Sato, MD, Hiroshi Maruyama, MD, Takaya Higashi, MD, Kouichi Arinaga, MD, and Shigeaki Aoyagi, MD

- 622 Infectious Mediastinitis After Cardiac Operations: Computed Tomographic Findings
Yoshio Misawa, MD, PhD, Katsuo Fuse, MD, PhD, and Tsuguo Hasegawa, MD, PhD

- 625 Value of Reversed Saphenous Vein in Minimally Invasive Direct Coronary Artery Bypass Graft Procedures
V. R. Machiraju, MD, Michael H. Culig, MD, Richard L. Heppner, MD, Ricci A. Minella, MD, and James D. O'Toole, MD

- 628 Inflow Valve Regurgitation During Left Ventricular Assist Device Support May Interfere With Reverse Ventricular Remodeling
Nader Moazami, MD, Michael Argenziano, MD, Takushi Kohomoto, MD, Shahram Yazdani, MD, Eric A. Rose, MD, Daniel Burkhoff, MD, PhD, and Mehmet C. Oz, MD

- 632 Temporary Atrial Electrode for the Treatment of Supraventricular Tachycardia After Cardiac Operations
Hormoz Mehmanesh, MD, Rüdiger Lange, MD, and Siegfried Hagl, MD

- 637 Bradycardia Induced by Intravascular Versus Direct Stimulation of the Vagus Nerve
Gregory W. Thompson, BSc, James M. Levett, MD, Scott M. Miller, MD, Michael R. S. Hill, PhD, William G. Meffert, MD, Ronald J. Kolata, DVM, Michael F. Clem, DVM, David A. Murphy, DVM, MD, and J. Andrew Armour, MD, PhD

- 643 Transition From Cardiopulmonary Bypass to the HeartMate Left Ventricular Assist Device
Alfred J. Tector, MD, David C. Kress, MD, Francis X. Downey, MD, Terence M. Schmahl, MD, Kurt A. Dasse, PhD, and Victor L. Poirier

- 647 Gene Transfer Into the Donor Heart During Cold Preservation for Heart Transplantation
Satoshi Gojo, MD, Kazuo Niwaya, MD, Shigeki Taniguchi, MD, Kazuhiko Nishizaki, MD, and Soichiro Kitamura, MD

- 653 Jugular Venous Bulb Oxygen Saturation Depends on Blood Pressure During Cardiopulmonary Bypass
Georg Grubhofer, MD, Andrea M. Lassnigg, MD, Barbara Schneider, PhD, Maria A. Rajek, MD, Thomas Pernerstorfer, MD, and Michael J. Hiesmayr, MD

Invited Commentary
Eugene A. Hessel II, MD

- 659 Left Anterior Descending Endarterectomy and Internal Thoracic Artery Bypass for Diffuse Coronary Disease
Inderjit S. Gill, FRCS(C), Donald S. Beanlands, FRCP(C), W. Douglas Boyd, FRCS(C), Sharon Finlay, RN, and Wilbert J. Keon, FRCS(C)

- 663 Effect of Assisted Circulation on Left Ventricular Performance in a Canine Model
Yasuhiro Uozaki, MD, Arata Murakami, MD, Hidetsugu Asanoi, MD, Shinji Ishizaka, MD, and Takuro Misaki, MD

- 667 **High-Dose ϵ -Aminocaproic Acid Versus Aprotinin: Antifibrinolytic Efficacy in First-Time Coronary Operations**
Balthasar Eberle, MD, Eckhard Mayer, MD, Gerhard Hafner, MD, Jens Heinermann, Manfred Dahm, MD, PhD, Winfried Prellwitz, MD, Wolfgang Dick, MD, and Hellmut Oelert, MD, PhD
- 674 **Aprotinin and Dipyridamole for the Safe Reduction of Postoperative Blood Loss**
Gideon Cohen, MD, Joan Ivanov, MSc, Richard D. Weisel, MD, Vivek Rao, MD, Molly K. Mohabeer, BSc, and Donald A. G. Mickle, MD
- 684 **Renal Effects of α -Ketoglutarate Early After Coronary Operations**
Anders Jeppsson, MD, Rolf Ekroth, MD, Peter Friberg, MD, Klaus Kirnö, MD, Italo Milocco, MD, Folke N. Nilsson, MD, PhD, Sverker Svensson, MD, and Jan Wernerman, MD, PhD
Invited Commentary
Joseph B. Zwischenberger, MD
- 691 **Platelet and Neutrophil Activation During Cardiac Surgical Procedures: Impact of Cardiopulmonary Bypass**
David S. Morse, MD, David Adams, MD, and Barbarajean Magnani, PhD, MD
- 696 **Re-Replacement for Prosthetic Valve Dysfunction: Analysis of Long-Term Results and Risk Factors**
Kiyofumi Morishita, MD, PhD, Tsuru Mawatari, MD, Toshio Baba, MD, Johji Fukada, MD, and Tomio Abe, MD
- 700 **Early Results of Transmyocardial Revascularization With a Holmium Laser**
Aldo Milano, MD, Stefano Pratali, MD, Giuseppe Tartarini, MD, Rita Mariotti, MD, Marco De Carlo, MD, Giovanni Paterni, MD, Giuseppe Boni, MD, and Uberto Bortolotti, MD
- 705 **Intima-Adventitia Apposition in End-to-Side Arterial Anastomosis: An Experimental Study in the Pig**
Robin H. Heijmen, MD, Paul F. Gründeman, MD, PhD, and Cornelius Borst, MD, PhD
- 712 **Activation of Coagulation and Fibrinolysis During Cardiothoracic Operations**
Beverley J. Hunt, FRCP, Rachel N. Parratt, MSc, Helen C. Segal, BSc, Sajila Sheikh, PhD, Panny Kallis, FRCS, and Magdi Yacoub, FRCS
- 719 **Granulocyte Elastase Release and Pulmonary Hemodynamics in Patients With Atrial Septal Defect**
Hidenori Gohra, MD, Yoshihiko Fujimura, MD, Hiroshi Ito, MD, Kimikazu Hamano, MD, Tomoe Katoh, MD, Nobuya Zempo, MD, and Kensuke Esato, MD
- 724 **Reduction of Allogeneic Blood Transfusions After Open Heart Operations by Lowering Cardiopulmonary Bypass Prime Volume**
Oz M. Shapira, MD, Gabriel S. Aldea, MD, Patrick R. Treanor, CCP, Robin M. Chartrand, PA-C, Kolleen M. DeAndrade, PA-C, Harold L. Lazar, MD, and Richard J. Shemin, MD
Invited Commentary
Colleen F. Sintek, MD
- 731 **Angiographic Follow-up of Internal Thoracic Artery for Free Bypass Grafting**
Tomoyuki Masuda, MD, Yasuo Matsuda, MD, Yoshinori Tanimoto, MD, Kensuke Sakata, MD, Kenji Hayashi, MD, and Yurio Kobayashi, MD
- 735 **Aneurysm of Sinus of Valsalva Dissecting Into Interventricular Septum**
Shiv Kumar Choudhary, MCh, Anil Bhan, MCh, Subhash Chandra Bose Reddy, DM, Rajesh Sharma, MCh, Vivek Murari, FRCSed, Balram Airan, MCh, Arkalgud Sampath Kumar, MCh, and Panangipalli Venugopal, MCh
- 741 **Intraaortic Balloon Pump in Open Heart Operations: 10-Year Follow-up With Risk Analysis**
Osama E. Arafa, MD, Thore H. Pedersen, ACP, Jan L. Svennevig, MD, PhD, Erik Fosse, MD, PhD, and Odd R. Geiran, MD, PhD
- 748 **Prospective, Randomized Clinical Study of Ischemic Preconditioning as an Adjunct to Intermittent Cold Blood Cardioplegia**
Richard W. Illes, MD, and Katharine D. Swoyer, CCP
Invited Commentary
Philippe Menasché, MD, PhD
- 754 **Long-Term Results After Repair of Complete Atrioventricular Septal Defects: Analysis of Risk Factors**
Thomas Günther, MD, Domenico Mazzitelli, MD, Christoph J. Haehnel, MD, Klaus Holper, MD, Fritz Sebening, MD, and Hans Meisner, MD

- 761 **Hemodynamic Effects of Human Atrial Natriuretic Peptide After Modified Fontan Procedure**
Takeshi Hiramatsu, MD, Yasuharu Imai, MD, Yoshinori Takanashi, MD, Kazuhiro Seo, MD, Masatsugu Terada, MD, and Makoto Nakazawa, MD

- 765 **Minimally Invasive Repair of Atrial Septal Defects**
Michael D. Black, MD, and Robert M. Freedom, MD

- 768 **Surgical Management of Aortopulmonary Window**
Isidoro Di Bella, MD, and Dennis J. Gladstone, FRCS

- 771 **Transxiphoid Approach Without Median Sternotomy for the Repair of Atrial Septal Defects**
Miguel Barbero-Marcial, MD, Carla Tanamati, MD, Marcelo B. Jatene, MD, Edmar Atik, MD, and Adib D. Jatene, MD

- 775 **Implantable Cardioverter-Defibrillators in Children: A Single-Institutional Experience**
William R. Wilson, MD, Georgia E. Greer, MSN, and Blair P. Grubb, MD

ORIGINAL ARTICLES: GENERAL THORACIC

- 779 **Epithelial Cell Hyperproliferation After Biliopancreatic Reflux Into the Esophagus of Rats**
Manuel Pera, MD, Luis Grande, MD, Marisa Gelabert, MD, Xavier Figueras, PhD, Miguel Pera, MD, Antonio Palacin, MD, Montserrat Elena, MD, Antonio Cardesa, MD, Antonio F. Tiburcio, PhD, and Victor F. Trastek, MD
- 787 **Esophageal Carcinoma: Depth of Tumor Invasion Is Predictive of Regional Lymph Node Status**
Thomas W. Rice, MD, Gregory Zuccaro, Jr, MD, David J. Adelstein, MD, Lisa A. Rybicki, MS, Eugene H. Blackstone, MD, and John R. Goldblum, MD
- 793 **Morphologic Grading of the Emphysematous Lung and Its Relation to Improvement After Lung Volume Reduction Surgery**
Wilfried Wisser, MD, Walter Klepetko, MD, Manfred Kontrus, MD, Alex Bankier, MD, Ömer Senbaklavaci, MD, Alexandra Kaider, MSc, Theo Wanke, MD, Edda Tschernko, MD, and Ernst Wolner, MD

- 800 **Experience With the Two-Windows Method for Mediastinal Lymph Node Dissection in Lung Cancer**
Masayuki Iwasaki, MD, Kichizo Kaga, MD, Noboru Nishiumi, MD, Fumio Maitani, MD, and Hiroshi Inoue, MD

- 803 **One-Day Admission for Lung Lobectomy: An Incidental Result of a Clinical Pathway**
Eduardo A. Tovar, MD, Robert A. Roethe, MD, Mark D. Weissig, MD, Richard E. Lloyd, MD, and Giribala R. Patel, MD

- 807 **Endoscopic Treatment of Bronchopleural Fistulas**
Federico Varoli, MD, Giancarlo Roviato, MD, Fabrizio Grignani, MD, Contardo Vergani, MD, Marco Maciocco, MD, and Carlo Rebuffat, MD

- 810 **Thoracoscopic Splanchnicectomy for Control of Intractable Pain in Pancreatic Cancer**
Françoise Le Pimpec Barthes, MD, Olivier Chapuis, MD, Marc Riquet, MD, Jean-François Cuttat, MD, Christophe Peillon, MD, Jérôme Mouroux, MD, and René Jancovici, MD

- 814 **Terminalized Semimechanical Side-to-Side Suture Technique for Cervical Esophagogastrostomy**
Jean-Marie Collard, MD, Renato Romagnoli, MD, Louis Goncette, MD, Jean-Bernard Otte, MD, and Paul-Jacques Kestens, MD

- 818 **Open-Window Thoracostomy and Thoracomyoplasty to Manage Chronic Pleural Empyema**
Mariano García-Yuste, MD, Guillermo Ramos, MD, José L. Duque, MD, Felix Heras, MD, Manuel Castanedo, MD, Luis J. Cerezal, MD, and José M. Matilla, MD

CASE REPORTS

- 823 **Combined Heart and Single-Lung Transplantation in Complex Congenital Heart Disease**
James I. Fann, MD, Michael K. Wilson, MD, James Theodore, MD, and Bruce A. Reitz, MD
- 825 **Lung Transplantation for Primary Pulmonary Hypertension and Giant Pulmonary Artery Aneurysm**
Thomas Wekerle, MD, Walter Klepetko, MD, Shahrokh Taghavi, MD, and Tudor Birsan, MD
- 827 **Induced Hypothermia in Critical Respiratory Failure After Lung Transplantation**
Leif T. Eriksson, MD, and Stig Steen, MD, PhD

- 829 **One-Stage Repair of Interrupted Aortic Arch and Aortopulmonary Window**
Hiroaki Hata, MD, Motomi Shiono, MD, Yukiyasu Sezai, MD, Naokata Sumitomo, MD, Masahiro Otsuka, MD, and Kensuke Harada, MD
- 831 **Saphenous Vein Graft Pseudoaneurysm Rupture After Coronary Artery Bypass Grafting**
Jun Mohara, MD, Hiroaki Konishi, MD, Morito Kato, MD, Yoshio Misawa, MD, Osamu Kamisawa, MD, and Katsuo Fuse, MD
- 833 **Transthoracic, Transdiaphragmatic Excision of Simultaneous Lung and Adrenal Lesions**
Raja M. Flores, MD, Daniel J. Goldstein, MD, Randall S. Sung, MD, Kenneth M. Steinglass, MD, Samuel Weinstein, MD, and John A. Chabot, MD
- 835 **Obstructive Rhabdomyoma and Univentricular Physiology: A Rare Combination**
Umesh Dyamenahalli, MD, Michael D. Black, MD, Christine Boutin, MD, Robert M. Gow, MB, BS, and Robert M. Freedom, MD
- 837 **Blunt Cardiac Rupture Caused by Zip Gun Backfire**
James O. Fulton, FCS(SA), Mark De Groot, FRCS(C), Ulrich O. Von Oppell, PhD, and Thomas Ruttman, FFA(SA)
- 839 **Right Ventricular Infarction During Left Ventricular Assist System Support**
Lawrence R. McBride, MD, Renato Ruggiero, MD, Karen A. Powers, RN, Debra A. Moroney, RN, and Marc T. Swartz, BA
- 841 **Mycotic Aneurysm of the Left Coronary Artery**
Masahiko Matsumoto, MD, Yutaka Konishi, MD, Senri Miwa, MD, and Kenji Minakata, MD
- 842 **Minimally Invasive Diaphragm Plication in an Infant**
Chris Van Smith, BS, Jeffrey P. Jacobs, MD, and Redmond P. Burke, MD
- 844 **Right Atrial Metastatic Melanoma in a Patient With Transient Ischemic Attacks**
Ganga Prabhakar, FRCS, Alexander Vasilakis, MD, Ronald C. Hill, MD, Jose L. Cruzzavala, MD, Geoffrey M. Graeber, MD, Robert A. Gustafson, MD, and Gordon F. Murray, MD
- 846 **One-Stage Sternal Stenting With Homograft Bone After Cardiac Operation in Pediatric Patients**
Jaw-Ji Chu, MD, Chau-Hsiung Chang, MD, Pyng Jing Lin, MD, Wen-Jen Su, MD, and Peter P. C. Tan, MD

- 848 **Reversal of Pulmonary Arteriovenous Malformation After Diversion of Anomalous Hepatic Drainage**
John Lee, MD, Alan H. Menkis, MD, and Herschel C. Rosenberg, MD

HOW TO DO IT

- 850 **Suspension of Straddling Tricuspid Valve Chordae Into the Appropriate Ventricle**
Jacques A. M. van Son, MD, PhD, Jörg Hambsch, MD, and Friedrich W. Mohr, MD, PhD
- 853 **Early Repair of Postinfarction Ventricular Septal Rupture: Infarct Exclusion, Septal Stabilization, and Left Ventricular Remodeling**
Hans D. de Boer, MD, and Wim J. de Boer, MD
- 855 **Thoracoscopic Limited Pericardial Resection With an Ultrasonic Scalpel**
Toshiya Ohtsuka, MD, Randall K. Wolf, MD, Peter Wurnig, MD, and Steven E. Park, MD
- 857 **Endomyocardial Biopsy in the Heterotopic Heart Transplant Patient**
David A. Arzouman, MD, Francisco A. Arabia, MD, Gulshan K. Sethi, MD, and Jack G. Copeland, MD
- 859 **Semicontinuous Suture Technique for All Prosthetic Valve Insertions: The "Hoist" Technique**
Patrick Ruchat, MD, Michel Hurni, MD, Adam P. Fischer, MD, and Hossein Sadeghi, MD
- 861 **Method for Creation of the Aortotomy Site for Saphenous Vein Grafts**
John C. Alexander, Jr, MD, Timothy V. Votapka, MD, Ronald D. Curran, MD, James M. Unger, PA-C, and Neal D. Hillman, MD

OUR SURGICAL HERITAGE

- 863 **On Writing Chapters for Books**
William (Bill) Bypass, MD

CURRENT REVIEW

- 868 **The Biology of Estrogen-Mediated Repair of Cardiovascular Injury**
Craig H. Selzman, MD, Thomas A. Whitehill, MD, Brian D. Shames, MD, Edward J. Pulido, MD, Brian C. Cain, MD, and Alden H. Harken, MD

KEY REFERENCES

- 875 **Esophageal Perforation**
Lewis Wetstein, MD, Andrew Duerr, MD, and Robert B. Wagner, MD

UPDATE

- 877 **Prolonged Extracorporeal Life Support of Pediatric and Adolescent Cardiac Transplant Patients**
Ralph E. Delius, MD

REPORTS

- 879 **1995 Coronary Artery Bypass Risk Model: The Society of Thoracic Surgeons Adult Cardiac National Database**
A. Laurie W. Shroyer, PhD, Frederick L. Grover, MD, and Fred H. Edwards, MD

- 885 **The Thoracic Surgery Foundation for Research and Education**

CTSNet

- 886 **The CTSNet Image Library**
Daniel A. Jacobson, MS

CORRESPONDENCE

- 888 **Refined Alpha Aminooleic Acid and Experimental Calcification in Bioprostheses**
Jyotirmay Chanda, MD, Ryosei Kuribayashi, MD, and Tadaaki Abe, MD

- 888 **Transapical Aortic Cannulation in Pediatric Patients**
Nandkishore Kapadia, MD, and Pierantonio Russo, MD

Reply
Hiroshi Watanabe, MD

- 889 **Pulmonary Valve Replacement: A Role for Mechanical Prostheses?**
Luca Rosti, MD, Bruno Murzi, MD, Anna Maria Colli, MD, Pierluigi Festa, MD, Sofia Redaelli, MD, and Alessandro Frigiola, MD

Reply
William G. Williams, MD

- 890 **Modified T Grafts: The Tarzan Factor**
John M. Alvarez, FRACS

Reply
Ian Nicholson, MBBS, and Hugh Paterson, FRACS

- 891 **Rapid Cooling Contracture With Cold Cardioplegia**
Hans H. J. Zwart, MD

- 892 **Laceration of the External Iliac Artery With a Pediatric Intraaortic Balloon Catheter**
Masakazu Sogawa, MD, Hiroshi Watanabe, MD, and Jun-ichi Hayashi, MD

- 893 **Cervical Mediastinoscopy as an Adjunct to Facilitate Mediastinal Lymph Node Dissection**
Eduardo A. Tovar, MD

- 894 **Time to Learn Echocardiography**
Mohammad Bashar Izzat, FRCS(CTH), and Anthony P. C. Yim, MD

- 894 **Internal Mammary Artery Branch Steal in Myocardial Revascularization**
Melih Erdinc, MD, Cuneyt Ozturk, MD, Ahmet Ocal, MD, and Vedat Koca, MD

Reply
Antonio M. Calafiore, MD, and Tomas A. Salerno, MD

- 896 **Is Semiskeletonization of Internal Thoracic Artery Another New Harvest Technique?**
Jong Bum Choi, MD, Hyun Woong Yang, MD, and Chul Bum Lee, MD

- 897 **Biventricular Repair of Hypoplastic Left Heart Disease: A Realistic Goal?**
Michael D. Black, MD, David Nykanen, MD, and Robert M. Freedom, MD

- 898 **Haemo-glyde Coated Chest Drainage Tubes**
Shyam K. Kolvekar, FRCS, Guy Finch, FRCS, Jo-Anne Mummery, MSc, Nick Taub, MSc, and Thomas J. Spyt, FRCS

- 899 **Reimplantation of Infected Antiarrhythmic Implantable Devices**
Erkmen Böke, MD, Mustafa Yilmaz, MD, and Murat Özkan, MD

- 899 **Trimodality Therapy for Esophageal Cancer**
Mark J. Krasna, MD

Reply
David R. Jones, MD

- 900 **Note to the Editor**
Jean E. Rubay, MD

CORRECTION

- 900 **Lönn U, Wulff J, Keck K-Y, et al. Flow Characteristics of the Hemopump: An Experimental In Vitro Study. Ann Thorac Surg 1997;63:162-6**

ANNOUNCEMENTS

| | | | |
|----------|---|----------|--|
| A-34 | Forthcoming Articles | 753 | Important Announcement |
| A-35, 36 | Information for Authors | 852 | Discussion Groups on the Internet |
| A-37 | Guidelines for the Submission of Electronic Manuscripts | 862, 887 | Notice From the American Board of Thoracic Surgery |
| A-38-41 | Events of Interest | 884 | <i>The Annals of Thoracic Surgery</i> Cumulative Index |
| 642 | Important Announcement for Authors | A-43, 44 | Call for Abstracts, Southern Thoracic Surgical Association |
| 747 | Notice From the Southern Thoracic Surgical Association | A-45, 46 | Classified Advertisements |
| | | A-50 | Index to Advertisers |

Number 4 April 1998

EDITORIALS

- 901 **Globalization**
Robert L. Replogle, MD
- 903 **International Aspects of Cardiac Surgery**
A. Thomas Pezzella, MD

SPECIAL PRESENTATION

- 905 **The Medicare Program and Thoracic Surgery: Crisis or Opportunity?**
Timothy J. Gardner, MD

**ORIGINAL ARTICLES:
GENERAL THORACIC**

- 909 **Long-Term Results After Repeated Surgical Removal of Pulmonary Metastases**
Daniela Kandioler, MD, Elisabeth Krömer, PhD, Heinz Tüchler, Adelheid End, MD, Michael Rolf Müller, MD, Ernst Wolner, MD, and Franz Eckersberger, MD
- 913 **Microvascular Permeability of the Non-Heart-Beating Rabbit Lung After Warm Ischemia and Reperfusion: Role of Neutrophil Elastase**
Hiroki Kishima, MD, Shin-ichi Takeda, MD, Shinichiro Miyoshi, MD, Akihide Matsumura, MD, Masato Minami, MD, Tomoki Utsumi, MD, Ken-ichi Omori, MD, Kazuya Nakahara, MD, and Hikaru Matsuda, MD
- 919 **Comparison of Conventional and Wire Mesh Expandable Prostheses and Surgical Bypass in Patients With Malignant Esophagorespiratory Fistulas**
Donald E. Low, MD, and Richard A. Kozarek, MD

Invited Commentary
Carolyn E. Reed, MD

- 924 **Thoracoscopic Operation for Secondary Pneumothorax Under Local and Epidural Anesthesia in High-Risk Patients**
Takahiro Mukaida, MD, Akio Andou, MD, Hiroshi Date, MD, Motoi Aoe, MD, and Nobuyoshi Shimizu, MD
- 927 **Bronchopulmonary Aspergilloma: A Reappraisal**
Antonios Chatzimichalis, MD, Gilbert Massard, MD, Romain Kessler, MD, Pierre Barsotti, MD, Bertrand Claudon, MD, Jean Ojard-Chillet, MD, and Jean-Marie Wihlm, MD
- 930 **Pathogenesis of Systemic Air Embolism During Bronchoscopic Nd:YAG Laser Operations**
George Tellides, MD, Baran S. Ugurlu, MD, Richard W. Kim, MD, and Graeme L. Hammond, MD
- 935 **Nitric Oxide Potentiates Acute Lung Injury in an Isolated Rabbit Lung Model**
Constanze S. Rayhrer, MD, Timothy D. Edmisten, MD, Gerald A. Cephas, MD, Curtis G. Tribble, MD, Irving L. Kron, MD, and Jeffrey S. Young, MD
- 939 **Bilateral Lung Volume Reduction Surgery via Median Sternotomy for Severe Pulmonary Emphysema**
Hiroshi Date, MD, Keiji Goto, MD, Ryo Souda, MD, Hiroaki Nagashima, MD, Izumi Togami, MD, Shigehito Endou, MD, Motoi Aoe, MD, Motohiro Yamashita, MD, Akio Andou, MD, and Nobuyoshi Shimizu, MD

ORIGINAL ARTICLES: CARDIOVASCULAR

- 943 **MRI-Radiofrequency Tissue Tagging in Patients With Aortic Insufficiency Before and After Operation**
Felix F. Ungacta, MD, Victor G. Dávila-Román, MD, Michael J. Moulton, MD, Brian P. Cupps, PhD, Pavlos Moustakidis, MD, Douglas S. Fishman, BS, Ricardo Actis, PhD, Barna A. Szabo, PhD, Debiao Li, PhD, Nicholas T. Kouchoukos, MD, and Michael K. Pasque, MD
- 951 **Midterm Results of Free Internal Thoracic Artery Grafting for Myocardial Revascularization**
Tadashi Tashiro, MD, Katsuhiko Nakamura, MD, Shungo Sukehiro, MD, Masanao Nakamura, MD, Ryuichi Shibano, MD, Tadashi Motomura, MD, and Michio Kimura, MD
Invited Commentary
Josef G. Vincent, MD
- 955 **Impact of Retrograde Cerebral Perfusion With Posterolateral Thoracotomy on Distal Arch Aneurysm Repair**
Chojiro Yamashita, MD, Masayoshi Okada, MD, Tosiki Yoshimura, MD, Takasi Azami, MD, Keitarou Nakagiri, MD, Hidetaka Wakiyama, MD, and Keiji Ataka, MD
- 961 **β -Blockade as an Alternative to Cardioplegic Arrest During Cardiopulmonary Bypass**
R. David Warters, MD, Steven J. Allen, MD, Karen L. Davis, BS, Hans J. Geissler, MD, Irene Bischoff, PhD, Ernst Mutschler, PhD, MD, and Uwe Mehlhorn, MD
- 967 **Hypomagnesemia Inhibits Nitric Oxide Release From Coronary Endothelium: Protective Role of Magnesium Infusion After Cardiac Operations**
Paul J. Pearson, MD, PhD, Paulo R. B. Evora, MD, PhD, John F. Seccombe, MD, and Hartzell V. Schaff, MD
- 973 **Soluble Complement Receptor Type I Limits Damage During Revascularization of Ischemic Myocardium**
Harold L. Lazar, MD, Takafumi Hamasaki, MD, Yusheng Bao, MD, Samuel Rivers, BS, Sheilah A. Bernard, MD, and Richard J. Shemin, MD
- 978 **Heart Retransplantation: A 23-Year Single-Center Clinical Experience**
Bruno Schnetzler, MD, Alain Pavie, MD, Richard Dorent, MD, Anne-Claude Camproux, MD, Philippe Leger, MD, Annick Delcourt, MD, and Iradj Gandjbakhch, MD
- 984 **Easy Harvesting of Radial Artery With Ultrasonically Activated Scalpel**
Hakan Posacioğlu, MD, Yüksel Atay, MD, Bülent Çetindağ, MD, Osman Sarıbulbul, MD, Suat Buket, MD, and Ahmet Hamulu, MD
- 986 **Endothelial-Dependent Dynamic and Antithrombotic Properties of Porcine Aortic and Pulmonary Valves**
Giulio Pompilio, MD, Giuseppe Rossoni, PhD, Andrea Sala, MD, Gian Luca Polvani, MD, Ferruccio Berti, PhD, Luca Dainese, MD, Massimo Porqueddu, MD, and Paolo Biglioli, MD
- 993 **Alterations in Renal Microcirculation During Cardiopulmonary Bypass**
Vivek L. Pathi, FRCS, John Morrison, Alan MacPhaden, MRCPATH, William Martin, PhD, Ann-Marie McQuiston, BSc, and David J. Wheatley, MD
- 999 **Negative Reexploration for Cardiac Postoperative Bleeding: Can It Be Therapeutic?**
Marc P. Pelletier, MD, Susan Solymoss, MD, Andrew Lee, BSc, and Ray C.-J. Chiu, MD, PhD
- 1003 **Arrest Duration Influences Postcardioplegia Electrophysiologic Recovery and Reperfusion Arrhythmias**
C. Patrick Murrah, MD, Edward R. Ferguson, MD, Russell D. Spruell, BSEE, and William L. Holman, MD
- 1009 **Effect of Skeletonizing Dissection on the Internal Thoracic Artery**
Tadahiro Sasajima, MD, Moses Hong-De Wu, MD, Qun Shi, MD, Naoki Hayashida, MD, and Lester R. Sauvage, MD
- 1014 **Surgical Management of Radiation-Induced Heart Disease**
Ramesh S. Veeragandham, MD, and Marshall D. Goldin, MD
- 1020 **Ulnar Artery as a Coronary Bypass Graft**
Brian F. Buxton, FRACS, Anthony T. Chan, FRACS, Anand S. Dixit, FRACS, Norman Eizenberg, MB, BS, Robert D. Marshall, FRACS, and Jai S. Raman, FRACS
- 1025 **Accurate Localization of Mitral Regurgitant Defects Using Multiplane Transesophageal Echocardiography**
Gary P. Foster, MD, Eric M. Isselbacher, MD, Geoffrey A. Rose, MD, David F. Torchiana, MD, Cary W. Akins, MD, and Michael H. Picard, MD

- 1032 Allograft Heart Valve Viability and Valve-Processing Variables**
Kenneth L. Gall, BAppSc, Susan E. Smith, BSc, Christene A. Willmette, EN, and Mark F. O'Brien, FRACS
- 1039 Mechanisms of Cardiomyoplasty: Comparative Effects of Adynamic Versus Dynamic Cardiomyoplasty**
Brian D. Mott, MD, Joong Hwan Oh, MD, Yoshio Misawa, MD, PhD, Joe Helou, MD, Vinay Badhwar, MD, David Francischelli, MS, and Ray C.-J. Chiu, MD, PhD
Invited Commentary
Juan C. Chachques, MD, PhD
- 1046 Prospective Trial of Catheter Irrigation and Muscle Flaps for Sternal Wound Infection**
Richard P. Rand, MD, Richard P. Cochran, MD, Salim Aziz, MD, Bradley O. Hofer, MD, Margaret D. Allen, MD, Edward D. Verrier, MD, and Karyn S. Kunzelman, PhD
- 1050 Deep Sternal Wound Infection: Risk Factors and Outcomes**
Michael A. Borger, MD, Vivek Rao, MD, Richard D. Weisel, MD, Joan Ivanov, MSc, Gideon Cohen, MD, Hugh E. Scully, MD, and Tirone E. David, MD
- 1057 Early Results of Posterior Leaflet Folding Plasty for Mitral Valve Reconstruction**
Eugene A. Grossi, MD, Aubrey C. Galloway, MD, Klaus Kallenbach, MD, Jeffrey S. Miller, MD, Rick Esposito, MD, Daniel S. Schwartz, MD, and Stephen B. Colvin, MD
- 1060 The Safety of Cardiac Operations in the Liver Transplant Recipient**
Ganga Prabhakar, FRCS, Giuliano Testa, MD, Osman Abbasoglu, MD, D. Rohan Jeyarajah, MD, Robert M. Goldstein, MD, Marlon F. Levy, MD, Bo S. Husberg, MD, PhD, Thomas A. Gonwa, MD, and Goran B. Klintmalm, MD, PhD
- 1065 Calcium Preconditioning in Human Myocardium**
Brian S. Cain, MD, Daniel R. Meldrum, MD, Xianzhong Meng, MD, PhD, Brian D. Shames, MD, Anirban Banerjee, PhD, and Alden H. Harken, MD
- 1071 Monocyte Tissue Factor Expression and Ongoing Complement Generation in Ventricular Assist Device Patients**
Carl R. Wilhelm, BS, Julianne Ristich, BS, Robert L. Kormos, MD, and William R. Wagner, PhD
- 1077 Temporal Relation of ATP-Sensitive Potassium-Channel Activation and Contractility Before Cardioplegia**
Latha Hebbar, MD, Ward V. Houck, MD, James L. Zellner, MD, B. Hugh Dorman, MD, PhD, and Francis G. Spinale, MD, PhD
- 1083 Should the Aortic Valve Homograft Be Recryopreserved?**
Akihiko Ohkado, MD, Mitsuhiro Hachida, MD, Hiroshi Furukawa, MD, Hua Lu, MD, Naoji Hanayama, MD, Hironobu Hoshi, BS, and Hitoshi Koyanagi, MD
- 1087 Conservative Operation for Infective Endocarditis of the Mitral Valve**
Evelyn M. Lee, MRCP, Leonard M. Shapiro, MD, and Francis C. Wells, FRCS
- 1093 Temporary Luminal Arteriotomy Seal for Bypass Grafting**
Robin H. Heijmen, MD, Cornelius Borst, MD, PhD, Rob van Dalen, MSc, Paul F. Gründeman, MD, PhD, and Cees W. J. Verlaan
- 1100 Facile Minimally Invasive Cardiac Surgery via Ministernotomy**
Steven R. Gundry, MD, O. Howard Shattuck, PA, Anees J. Razzouk, MD, Michael J. del Rio, MD, Frederic F. Sardari, MD, and Leonard L. Bailey, MD
- 1105 Impact of Ultrafiltration on Blood Use for Atrial Septal Defect Closure in Infants and Children**
A. Tayfun Gurbuz, MD, William M. Novick, MD, Connie A. Pierce, RN, and Donald C. Watson, MD
- 1110 Atrial Septal Displacement for Repair of Anomalous Pulmonary Venous Return Into the Right Atrium**
Takeshi Hiramatsu, MD, Yoshinori Takanashi, MD, Yasuharu Imai, MD, Shuichi Hoshino, MD, Kazuhiro Seo, MD, Masatsugu Terada, MD, Yusuke Iwata, MD, and Hirofumi Tomimatsu, MD
- 1115 Direct Reconstruction of the Pulmonary Artery During the Arterial Switch Operation: An Interesting Surgical Option With Excellent Hemodynamic Results**
Thierry Carrel, MD, Ilkka Mattila, MD, Jean-Pierre Pfammatter, MD, and Mauri Leijala, MD, PhD
- 1120 Left Pulmonary Artery Kinking Caused by Outflow Tract Dilatation After Transannular Patch Repair of Tetralogy of Fallot**
Doff B. McElhinney, MS, Andrew J. Parry, MD, V. Mohan Reddy, MD, Frank L. Hanley, MD, and Paul Stanger, MD

CASE REPORTS

- 1127 Saphenous Vein Graft Growth 13 Years After Coronary Bypass in a Child With Kawasaki Disease**
Hanna M. El-Khoury, MD, Delores A. Danilowicz, MD, Arnold J. Slovis, MD, Stephen B. Colvin, MD, and Michael Artman, MD
Invited Commentary
Soichiro Kitamura, MD
- 1130 Combined Coronary Bypass and Liver Transplantation: Technical Considerations**
Malek G. Massad, MD, Enrico Benedetti, MD, Raymond Pollak, MB, Youssef G. Chami, MD, Bradley S. Allen, MD, Maria A. DeCastro, MD, Thelma Wiley, MD, and Thomas J. Layden, MD
- 1132 Inflammatory Aneurysm of the Ascending Aorta**
Andreas Künzli, MD, Ludwig K. von Segesser, MD, Paul R. Vogt, MD, Donat R. Spahn, MD, Jakob Schneider, MD, Rolf Jenni, MD, and Marko I. Turina, MD
- 1133 Management of the Atherosclerotic Ascending Aorta With Endoaortic Occlusion**
John R. Liddicoat, MD, John R. Doty, MD, and R. Scott Stuart, MD
- 1135 Replacement of Infected Thoracic Aortic Prosthesis With a Spiral Composite Vein Graft**
J. Honório Palma, MD, Walter J. Gomes, MD, Dirceu R. Almeida, MD, Antonio C. Carvalho, MD, Luiz A. Brasil, MD, and Enio Buffolo, MD
- 1137 Natural History of a Ventriculoatrial Fistula After a Gunshot Injury in 1945**
Laszlo Selinger, MD, Klaus Werner, MD, Rolf Silber, MD, Ullrich Nellessen, MD, and Gerhard Inselmann, MD
- 1138 Transmyocardial Laser Revascularization in Allograft Coronary Artery Disease**
O. H. Frazier, MD, Kamuran A. Kadipasaoglu, PhD, Branislav Radovancevic, MD, Hasan B. Cihan, MD, Robert J. March, MD, Mahmood Mirhoseini, MD, and Denton A. Cooley, MD
Invited Commentary
Craig R. Smith, MD
- 1141 Combined TMR and Mitral Valve Replacement via Left Thoracotomy**
G. Chad Hughes, MD, Carolyn L. Donovan, MD, James E. Lowe, MD, and Kevin P. Landolfo, MD
- 1143 Heterotopic Pancreas of the Esophagus Associated With a Rare Type of Esophageal Atresia**
Iwao Yamagiwa, MD, Kazuya Obata, MD, Takayuki Ouchi, MD, Yoko Sotoda, MD, and Yasuhisa Shimazaki, MD
- 1144 Long-Term Cardiovascular Consequences of Undiagnosed Intralobar Pulmonary Sequestration**
Olivier H. Fabre, MD, Henri L. Porte, MD, François R. Godart, MD, Christian Rey, MD, and Alain J. Wurtz, MD
- 1146 Right Ventricular Dysplasia May Pose Risk of Ventricular Rupture After Cardiac Operations**
Sheryl L. Asplund, MD, Paul C. Taylor, MD, and Norman B. Ratliff, MD
- 1148 Bronchial Carcinoid Tumor Metastatic to the Breast**
Thomas C. Wozniak, MD, and Keith S. Naunheim, MD
- 1150 Delayed Presentation of Traumatic Parasternal Lung Hernia**
Michael J. Jacka, MD, and Fabio Luisson, MD
- 1151 Two-Stage Repair for Aortic Regurgitation With Interrupted Aortic Arch**
Hitoshi Ogino, MD, Shigehito Miki, MD, Keiji Matsubayashi, MD, Yuichi Ueda, MD, and Takuya Nomoto, MD
- 1153 Reversal of Renal Failure and Paraplegia After Thoracoabdominal Aneurysm Repair**
Mark D. Widmann, MD, Alphonse DeLucia, MD, W. John Sharp, MD, and Wayne E. Richenbacher, MD
- 1155 Video-Assisted Repair of a Traumatic Intercostal Pulmonary Hernia**
Michael J. Reardon, MD, Jan Fabré, MD, Patrick R. Reardon, MD, and John C. Baldwin, MD

HOW TO DO IT

- 1158 Prostaglandin E₁ From the Tip of an Intraaortic Balloon Catheter for Lower Limb Ischemia**
Toshihide Nakano, MD, Ryuji Tominaga, MD, Kiminori Shiraishi, CE, and Hisataka Yasui, MD
- 1161 Optimizing Mitral Valve Exposure With Conventional Left Atriotomy**
James F. McCarthy, FRCSI, and Delos M. Cosgrove III, MD
- 1163 Atrial Flap Anastomosis: An Alternative Technique for Orthotopic Heart Transplantation**
Volker Döring, MD, PhD, and Peter Marcsek, MD

- 1165 Minimally Invasive Reversed Z Sternotomy for Aortic Valve Replacement**
R. Unnikrishnan Nair, FRCS, and David A. C. Sharpe, FRCS

- 1167 Simplified Method for Candidate Selection for Radial Artery Harvesting**
William H. Johnson III, MD, Robert Samuel Cromartie III, MD, Jack E. Arrants, MD, James D. Wuamett, MD, and John B. Holt, MD

- 1168 Conversion From Routine CPB to Centrifugal Mechanical Assist by Transaortic Inflow Cannulation of the Left Ventricle**
Afksendiyos Kalangos, MD, PhD, Nicolas Murith, MD, Ary Baldovinos, MD, and Bernard Faidutti, MD

OUR SURGICAL HERITAGE

- 1171 A Mystery of Vladimir P. Demikhov: The 50th Anniversary of the First Intrathoracic Transplantation**
Igor E. Konstantinov, MD

CURRENT REVIEW

- 1178 Cantrell's Syndrome: A Challenge to the Surgeon**
Jaime F. Vazquez-Jimenez, MD, Eberhard G. Muehler, MD, Sabine Daebritz, MD, Juergen Keutel, MD, Kyoichi Nishigaki, MD, Werner Huegel, MD, and Bruno J. Messmer, MD

UPDATE

- 1186 Sutureless Ring Graft Replacement of Ascending Aorta and Aortic Arch**
Mehmet C. Oz, MD, Robert C. Ashton, Jr, MD, and Gerald M. Lemole, MD

CTSNet

- 1188 Streaming Video for The Annals Internet Readers**
Peter S. Greene, MD

REPORT

- 1190 The Thoracic Surgery Foundation for Research and Education**

CORRESPONDENCE

- 1191 Intraluminal Shunting for Coronary Bypass**
Eugene Wallsh, MD

Reply
Luiz Antonio Rivetti, MD

- 1192 Surgical Removal of Teletronics Pacing Wire From the Right Pulmonary Artery**
Dilip Oswal, MD, Javed Hayat, FRCS, and Philip H. Kay, MD

- 1192 Extracorporeal Membrane Oxygenation Support and Cytokines**
Koji Kawahito, MD, PhD, Yoshio Misawa, MD, PhD, and Katsuo Fuse, MD, PhD

- 1193 A Proper Name for the Internal Mammary Artery?**
Tsung O. Cheng, MD

- 1194 A Feasible Femoral Cannulation Method During Cardiopulmonary Bypass**
Jari Satta, MD, PhD, Jussi Rimpiläinen, MD, Pekka Rainio, MD, PhD, and Tatu Juvonen, MD, PhD

Reply
Thomas J. Vander Salm, MD

- 1195 Minimally Invasive Coronary Artery Bypass**
Albert J. Pfister, MD, and Fernando G. Resano, MD

Reply
Nelson Ancalmo, MD, and John R. Busby, MD

- 1196 Minimally Invasive Coronary Artery Bypass Grafting: What Is the Best Approach?**
Tyrone J. Krause, MD

Reply
Nelson Ancalmo, MD, and John R. Busby, MD

- 1196 Minimally Invasive Axillary-Coronary Artery Bypass**
Kiyofumi Morishita, MD, Chikara Shiiku, MD, and Tomio Abe, MD

- 1197 Minimally Invasive Axillary-Coronary Artery Bypass**
Yuzuru Sakakibara, MD

Reply
Wade L. Knight, MD

- 1197 Steroids for Pulmonary Metastases of Thymoma**
Dov Weissberg, MD

Reply
Ken Kodama, MD, Masahiko Higashiyama, MD, Hideoki Yokouchi, MD, Koji Takami, MD, and Hiroko Funai, BS

- 1198 Video-Assisted Modified
Abruzzini Technique for
Bronchopleural Fistula Repair**
Lorenzo Spaggiari, MD, PhD, Paolo Carbognani,
MD, PhD, Piergiorgio Solli, MD, and Michele
Rusca, MD

Reply

Aart Brutel de la Riviere, MD, PhD, Paul J.
Knaepen, MD, and Henry A. van Swieten, MD,
PhD

- 1200 Why Do Channels Remain Patent After
Transmyocardial Laser Revascularization?**
Jiri T. Beranek, MD

CORRECTION

- 1200 Arom KV, Emery RW. Minimally Invasive
Mitral Operations. Ann Thorac Surg 1997;
63:1219-20**

ANNOUNCEMENTS

- A-39, 40 Information for Authors**
-

- A-41 Guidelines for the
Submission of Electronic Manuscripts**
- A-42-44 Events of Interest**
- A-45 Forthcoming Articles**
- 992 Notice From the Southern
Thoracic Surgical Association**
- 1019, 1157 Notice From the American
Board of Thoracic Surgery**
- 1064 Important Announcement for Authors**
- 1109 Discussion Groups on the Internet**
- 1187 *The Annals of Thoracic Surgery*
Cumulative Index**
- 1189 Important Announcement**
- A-51, 52 Call for Abstracts, Southern Thoracic
Surgical Association**
- A-53, 54 Classified Advertisements**
- A-64 Index to Advertisers**
-

Number 4 April 1998 (Suppl)

- | | |
|--|---|
| <p>S1 Introduction</p> <p>S2 Management of Bleeding Complications in Redo Cardiac Operations Craig R. Smith, MD</p> <p>S9 Aprotinin Versus Lysine Analogues: The Debate Continues David Royston, MD</p> | <p>S20 Brain Damage During Cardiopulmonary Bypass Kenneth M. Taylor, MD</p> <p>S27 Discussion</p> |
|--|---|
-

Number 5 May 1998

PRESIDENTIAL ADDRESS

- 1201 Paranoia or Reality?**
George C. Kaiser, MD

**ORIGINAL ARTICLES:
CARDIOVASCULAR**

- 1207 Long-Term Follow-up in
Hypertrophic Obstructive
Cardiomyopathy After Septal Myectomy**
Mariette H. Schönbeck, MD, Hans P. Brunner-La
Rocca, MD, Paul R. Vogt, MD, Mario L. Lachat,
MD, Rolf Jenni, MD, Otto M. Hess, MD, and
Marko I. Turina, MD

- 1215 Management of Patients With
Mild Aortic Stenosis Undergoing
Coronary Artery Bypass Grafting**
James W. Tam, MD, Roy G. Masters, MD, Ian G.
Burwash, MD, Alain D. Mayhew, BS, and Kwan-
Leung Chan, MD

Invited Commentary
John J. Collins, Jr, MD

- 1220 Hypoxia Increases Vasodilator
Release From Internal Mammary
Artery and Saphenous Vein Grafts**
Paul J. Pearson, MD, PhD, Paulo R. B. Evora,
MD, PhD, Berent Discigil, MD, and Hartzell V.
Schaff, MD

- 1226 Cardiopulmonary Bypass Time Does Not Affect Cerebral Blood Flow**
Narda D. Croughwell, CRNA, Joseph G. Reves, MD, William D. White, MPH, Hilary P. Grocott, MD, Beatrice I. Baldwin, CRNA, Fiona M. Clements, MD, Robert D. Davis, Jr, MD, Robert H. Jones, MD, and Mark F. Newman, MD
- 1231 Optimization of Synchronization Delay in Latissimus Dorsi Dynamic Cardiomyoplasty**
Kerem M. Vural, MD, Oguz Tasdemir, MD, Suha D. Küçükaksu, MD, Onurcan K. Tarcan, MD, and Kemal Bayazit, MD
- 1235 Glucose and Fatty Acid Oxidation by the In Situ Dog Heart During Experimental Cooling and Rewarming**
Terje K. Steigen, MD, PhD, Torkjel Tveita, MD, Olav Hevrøy, MD, PhD, Thomas V. Andreassen, and Terje S. Larsen, PhD
Invited Commentary
Richard M. Engelman, MD
- 1241 Cardioprotection by Local Heating: Improved Myocardial Salvage After Ischemia and Reperfusion**
Ashok Gowda, MS, Chun-jie Yang, MD, Gregory K. Asimakis, PhD, Johannes Ruef, MD, Sohi Rastegar, PhD, Marschall S. Runge, MD, PhD, and Massoud Motamedi, PhD
- 1248 Shed Mediastinal Blood Transfusion After Cardiac Operations: A Cost-Effectiveness Analysis**
Meredith L. Kilgore, MSPH, and Albert D. Pacifico, MD
- 1255 Surgical Treatment of Aortic Dissections: Initial Experience With the Adventitial Inversion Technique**
Raúl García-Rinaldi, MD, PhD, Jorge Carballido, MD, Joaquín Mojica, MD, Ernesto R. Soltero, MD, Slavisa Curcic, MD, José Barceló, MD, and Raúl Porro, MD
- 1260 Myocardial Oxygenation During Terminal Warm Blood Cardioplegia**
Michio Kawasuji, MD, Shigeyuki Tomita, MD, Tamotsu Yasuda, MD, Naoki Sakakibara, MD, Hirofumi Takemura, MD, and Yoh Watanabe, MD
- 1265 Continuous Perfusion Improves Preservation of Donor Rat Hearts: Importance of the Implantation Phase**
David K. Nickless, MB, BS, Marc Rabinov, MB, BS, PhD, Stephen M. Richards, PhD, Robert A. J. Conyers, FRCPA, and Franklin L. Rosenfeldt, FRACS
- 1273 Early Injury to the Media After Saphenous Vein Grafting**
James E. O'Brien, Jr, MD, Michael L. Ormont, MD, Yi Shi, MD, PhD, Dian Wang, BS, Andrew Zalewski, MD, and John D. Mannion, MD
- 1279 Normothermic Versus Hypothermic Hyperkalemic Cardioplegia: Effects on Myocyte Contractility**
Ward V. Houck, MD, Scott B. Kribbs, BS, James L. Zellner, MD, Melissa A. Doscher, BS, Jignesh D. Joshi, BS, Fred A. Crawford, Jr, MD, and Francis G. Spinale, MD, PhD
Invited Commentary
Robert A. Guyton, MD
- 1284 Radial Artery Use in Bypass Grafting Does Not Change Digital Blood Flow or Hand Function**
Gregory A. Dumanian, MD, Keith Segalman, MD, Luis A. Mispireta, MD, John A. Walsh, MD, Mark F. Hendrickson, MD, and E. F. Shaw Wilgis, MD
- 1288 Growth Potential and Left Ventricular Diastolic Function in Cardiomyoplasty**
Yoshio Misawa, MD, PhD, Katsuo Fuse, MD, PhD, Tsuguo Hasegawa, MD, PhD, and Hiroaki Konishi, MD
- 1291 Surgical Management of Hemorrhage From Rupture of the Aortic Arch**
René Prêtre, MD, Nicolas Murith, MD, Dominique Delay, MD, and Tshibambula Kalonji, MD
- 1296 Intravenous Aspartate Infusion After a Coronary Operation: Effects on Myocardial Metabolism and Hemodynamic State**
Ingemar Vanhanen, MD, Erik Håkanson, MD, PhD, Lennart Jorfeldt, MD, PhD, and Rolf Svedjeholm, MD, PhD
- 1303 Cardioprotection by Activation of NO/cGMP Pathway After Cardioplegic Arrest and 8-Hour Storage**
Imtiaz S. Ali, MD, Manoj Gandhi, PhD, Barry A. Finegan, MB, Arvind Koshal, MD, and Alexander S. Clanachan, PhD
- 1310 Heparin-Coated Equipment Reduces the Risk of Oxygenator Failure**
Alexander Wahba, MD, Alois Philipp, BS, Renate Behr, and Dietrich E. Birnbaum, MD
- 1313 Aortic Valve Operations Under Deep Hypothermic Circulatory Arrest for the Porcelain Aorta: "No-Touch" Technique**
John G. Byrne, MD, Sary F. Aranki, MD, and Lawrence H. Cohn, MD

- 1316 Intravenous Diltiazem and Acute Renal Failure After Cardiac Operations**
Eric W. Young, MD, Anas Diab, MD, and Marvin M. Kirsh, MD
- 1320 Neuropsychologic Changes After Coronary Artery Bypass Grafting: Use of Reliable Change Indices**
Anthony C. Kneebone, MA, Marie J. Andrew, BA, Robert A. Baker, PhD, and John L. Knight, FRACS
- 1326 Behavior of Mitral Allografts in the Tricuspid Position in the Growing Sheep Model**
José M. Bernal, MD, José M. Rabasa, MD, Juan C. Cagigas, MD, Fernando Val, MD, and José M. Revuelta, MD
- 1331 Minimally Invasive Surgical Technique for the Treatment of Multivessel Coronary Artery Disease**
Vassilios Guliemos, MD, Michael Knaut, MD, Florian M. Wagner, MD, and Stephan Schüler, MD
- 1335 Effect of Nitric Oxide Gas on Platelets During Open Heart Operations**
Karin Mellgren, MD, PhD, Gösta Mellgren, MD, PhD, Stefan Lundin, MD, PhD, Åke Wennmalm, MD, PhD, and Hans Wadenvik, MD, PhD
- 1342 Cardiopulmonary Bypass Circuit Treated With Surface-Modifying Additives: A Clinical Evaluation of Blood Compatibility**
Y. John Gu, MD, PhD, Piet W. Boonstra, MD, PhD, Anthony A. Rijnsburger, Johan Haan, BSc, and Willem van Oeveren, PhD
- 1348 Vertical Displacement of the Beating Heart by the Octopus Tissue Stabilizer: Influence on Coronary Flow**
Paul F. Gründeman, MD, PhD, Cornelius Borst, MD, PhD, Joost A. van Herwaarden, MD, Cees W. J. Verlaan, and Erik W. L. Jansen, MD, PhD
- 1353 Retrograde Infusion of Lidocaine or L-Arginine Before Reperfusion Reduces Myocardial Infarct Size**
Richard Lee, MD, Takashi Nitta, MD, Ralph A. Schmid, MD, Richard B. Schuessler, PhD, Kevin M. Harris, MD, and William A. Gay, Jr, MD
- 1360 Evidence of Vascular Growth Associated With Laser Treatment of Normal Canine Myocardium**
Takushi Kohmoto, MD, Carolyn M. DeRosa, BS, Noriyoshi Yamamoto, Peter E. Fisher, MD, Pedram Failey, BA, Craig R. Smith, MD, and Daniel Burkoff, MD, PhD
- 1368 Modified Konno-Rastan Procedure for Subaortic Stenosis: Indications, Operative Techniques, and Results**
Patrick T. Roughneen, FRCS, Serafin Y. DeLeon, MD, Frank Cetta, MD, Dolores A. Vitullo, MD, Timothy J. Bell, MD, Elizabeth A. Fisher, MD, Bradford P. Blakeman, MD, and Mamdouh Bakhos, MD
- 1377 Artificial Chordae for Mitral Valve Reconstruction in Children**
Takashi Murakami, MD, Toshikatsu Yagihara, MD, Fumio Yamamoto, MD, Hideki Uemura, MD, Katsushi Yamashita, MD, and Toru Ishizaka, MD
- 1381 The Surgical Anatomy of the Left Ventricular Outflow Tract in Hearts With Ventricular Septal Defect and Aortic Arch Obstruction**
Yuichi Shiokawa, MD, and Anton E. Becker, MD
- 1388 Cardiac Rhabdomyomas and Obstructive Left Heart Disease: Histologically but Not Functionally Benign**
Michael D. Black, MD, Margit Kadletz, MD, Jeffery F. Smallhorn, MD, and Robert M. Freedom, MD
- 1391 Modified Superior Approach for Repair of Supracardiac and Mixed Total Anomalous Pulmonary Venous Drainage**
Alain Serraf, MD, Emré Belli, MD, Daniel Roux, MD, Miguel Sousa-Uva, MD, François Lacour-Gayet, MD, and Claude Planché, MD
- 1394 Patterns and Potential Value of Cardiac Troponin I Elevations After Pediatric Cardiac Operations**
Russel Hirsch, MBChB, Catherine L. Dent, MD, Mary K. Wood, RN, Charles B. Huddleston, MD, Eric N. Mendeloff, MD, David T. Balzer, MD, Yvonne Landt, MS, Curtis A. Parvin, PhD, Michael Landt, PhD, Jack H. Ladenson, PhD, and Charles E. Canter, MD
- 1400 Pulmonary Vascular Resistance of Children Treated With Nitrogen During Early Infancy**
Ronald W. Day, MD, Alan J. Barton, MD, Theodore J. Pysher, MD, and Robert E. Shaddy, MD

ORIGINAL ARTICLES: GENERAL THORACIC

- 1405 Tumor Angiogenesis as a Prognostic Marker in Operable Non-Small Cell Lung Cancer**
Katsuhiko Matsuyama, MD, Yukio Chiba, MD, Masato Sasaki, MD, Hirokazu Tanaka, MD, Ryusuke Muraoka, MD, and Nobuhiko Tanigawa, MD

- 1410 Operative Risk and Prognostic Factors of Typical Bronchial Carcinoid Tumors**
Xavier Ducrocq, MD, Pascal Thomas, MD, Gilbert Massard, MD, Pierre Barsotti, MD, Roger Giudicelli, MD, Pierre Fuentes, MD, and Jean-Marie Wihlm, MD

Invited Commentary
Nael Martini, MD

- 1415 Surgical Therapy for Pulmonary Aspergillosis in Immunocompromised Patients**
Christopher T. Salerno, MD, David W. Ouyang, BS, Timothy S. Pederson, BA, David M. Larson, MD, Jay P. Shake, MD, Eric M. Johnson, MD, and Michael A. Maddaus, MD
- 1420 Isolated Lung Perfusion: Single-Pass System Versus Recirculating Blood Perfusion in Pigs**
Markus Furrer, MD, Didier Lardinois, MD, Wolfgang Thormann, PhD, Hans J. Altermatt, MD, Daniel Betticher, MD, Thomas Cerny, MD, Antonin Fikrle, MD, Daniel Mettler, DVM, Ulrich Althaus, MD, Michael E. Burt, MD, PhD, and Hans-Beat Ris, MD
- 1426 Intraoperative Gamma Probe-Directed Biopsy of Asymptomatic Suspected Bone Metastases**
Lary A. Robinson, MD, Dianne Preksto, PA-C, Carlos Muro-Cacho, MD, and David S. Hubbell, MD
- 1433 The Role of Esophagectomy in the Management of Esophageal Perforations**
Áron Altorjay, MD, PhD, János Kiss, MD, PhD, Attila Vörös, MD, PhD, and Endre Szirányi, MD

CASE REPORTS

- 1437 Histologic Findings of Transmyocardial Laser Channels After Two Hours**
Georg Lutter, MD, Jirka Schwarzkopf, MD, Christoph Lutz, MD, Juergen Martin, MD, and Friedhelm Beyersdorf, MD
- 1439 Thoracoscopic Transmyocardial Laser Revascularization**
Keith A. Horvath, MD
- 1441 Modified Repair of Mixed Anomalous Pulmonary Venous Connection**
Jacques A. M. van Son, MD, PhD, Jörg Hambsch, MD, and Friedrich W. Mohr, MD, PhD
- 1442 Aortocoronary Bypass Grafting With Expanded Polytetrafluoroethylene: 12-Year Patency**
Allison J. McLarty, MD, Michael R. Phillips, MD, David R. Holmes, Jr, MD, and Hartzell V. Schaff, MD
- 1444 Acute Normovolemic Red Cell Exchange for Cardiopulmonary Bypass in Sickle Cell Disease**
Gerald Shulman, MD, Christopher McQuitty, MD, Roger A. Vertrees, CCP, and Vincent R. Conti, MD
- 1446 Surgical Treatment of the Redundant Interposed Colon After Retrosternal Esophagoplasty**
Luigi Bonavina, MD, Barbara Chella, MD, Andrea Segalin, MD, and Sergio Luzzani, MD
- 1448 Stentless Xenograft Repair of the Dissected Aortic Root**
Stephen Westaby, FRCS, Takahiro Katsumata, MD, Remi Houel, MD, and Amihay Shinfeld, MD
- 1450 Ross Operation and Mitral Homograft for Aortic and Tricuspid Valve Endocarditis**
Alain Prat, MD, Olivier H. Fabre, MD, André Vincentelli, MD, Vincent Doisy, MD, and Ghatfan Shaaban, MD
- 1452 MIDCABG Followed by a Gastrointestinal Operation in the Same Anesthetic Setting**
David Zolfaghari, MD, and Albert J. Pfister, MD
- 1453 Successful Thrombolysis of an Occluded Modified Blalock Shunt Three Days After Operation**
Torsten K. Malm, MD, PhD, Catarina Holmqvist, MD, Carl-Gustav Olsson, MD, PhD, Jens Johansson, MD, Ann-Kristin Olsson, MD, PhD, Staffan Sandström, MD, Rolf Bennhagen, MD, and Peeter Jögi, MD
- 1456 Mitral Valve Replacement Associated With Massive Left Atrial Calcification**
Francesco Santini, MD, Pierfranco Peranzoni, MD, and Alessandro Mazzucco, MD
- 1458 Unruptured Aneurysm of the Sinus of Valsalva Into the Pulmonary Artery**
Shoichiro Shiraishi, MD, Shoji Watarida, MD, Kazuhiko Katsuyama, MD, Yasuhiko Nakajima, MD, Masato Imura, MD, Takao Nishi, MD, and Atsumi Mori, MD
- 1459 Idiopathic Saccular Azygos Vein Aneurysm**
Atsushi Watanabe, MD, Katsuyuki Kusajima, MD, Naohiko Aisaka, MD, Hiroyuki Sugawara, MD, and Kazunori Tsunematsu, MD
- 1461 Giant Solitary Fibrous Tumor of the Pleura**
Junaid H. Khan, MD, Sarah B. Rahman, MD, Carolyn Clary-Macy, RN, Robert K. Kerlan, MD, Tracy I. George, MD, Timothy S. Hall, MD, and David M. Jablons, MD

- 1464 Division of the Main Pulmonary Artery: Suboptimal Palliation for the Patient With a Univentricular Heart**
Jeffrey A. Wong, MD, and Robert H. Beekman III, MD

- 1465 Broncholithiasis and Thoracoabdominal Actinomycosis From Dropped Gallstones**
Seiichi Noda, MD, David I. Soybel, MD, Barbara A. Sampson, MD, PhD, and Malcolm M. DeCamp, Jr, MD

HOW TO DO IT

- 1468 Bicuspidization for Tricuspid Stenosis**
Solomon Victor, FRCP, and Vijaya M. Nayak, MS

- 1471 Use of 3.5-mm Acetabular Reconstruction Plates for Internal Fixation of Flail Chest Injuries**
J. Rodrigo Oyarzun, MD, Andrew P. Bush, MD, John R. McCormick, MD, and Paul J. P. Bolanowski, MD

Invited Commentary
George B. Haasler, MD

- 1475 Clamp for Coronary Artery Operations**
Abhay Singh Walia, MCh, and Shrikant D. Kole, MCh

- 1477 An Inexpensive Method of Heart Stabilization During Coronary Artery Operations Without Cardiopulmonary Bypass**
Vincenzo Lucchetti, MD, and Gianni D. Angelini, FRCS

- 1479 A Cost-Effective Retractor and Heart Stabilizer for Minimal-Access Coronary Bypass**
John A. Rousou, MD, Richard M. Engelman, MD, Joseph E. Flack III, MD, and David W. Deaton, MD

- 1481 Control of Endoaortic Clamp Position During Port-Access Mitral Valve Operations Using Transcranial Doppler Echography**
Felix Schneider, MD, Volkmar Falk, MD, Thomas Walther, MD, and Friedrich W. Mohr, MD, PhD

Invited Commentary
Mario F. Pompili, MD

CURRENT REVIEW

- 1483 Descending Cervical Mediastinitis**
Paul D. Kiernan, MD, Adam Hernandez, William D. Byrne, MD, Robert Bloom, MD, Barry Diccio, MD, Vivian Hetrick, RN, Paula Graling, RN, and Betty Vaughan, RN

KEY REFERENCES

- 1489 Cardiac Transplantation**
Arthur J. Crumbley III, MD

UPDATE

- 1492 Esophageal Carcinoma: Surgery Without Preoperative Adjuvant Chemotherapy**
Kamal A. Mansour, MD, Vinod H. Thourani, MD, and William A. Cooper, MD

REPORTS

- 1494 Updates to the Data Quality Review Program: The Society of Thoracic Surgeons Adult Cardiac National Database**
A. Laurie W. Shroyer, PhD, Fred H. Edwards, MD, and Frederick L. Grover, MD

- 1498 Thirty-fourth Annual Meeting, The Society of Thoracic Surgeons**

CTSNet

- 1508 First Annual Meeting of The Society of Thoracic Surgeons on the Web**
George C. Kaiser, MD

CORRESPONDENCE

- 1509 Cuffed Venous Return Cannulas in Minimally Invasive Cardiac Operations**
Khalid E. Al-Ebrahim, FRCSC, and Hussein El Shafei, FRCS(C/Th)

Reply
Federico J. Benetti, MD

- 1509 Minimally Invasive Mitral Operations**
Wolfgang Konertz, MD, PhD

Reply
Kit V. Arom, MD, PhD, and Robert W. Emory, MD

- 1510 Thoracoscopic Transmyocardial Revascularization**
Aldo Milano, MD, Andrea Pietrabissa, MD, and Uberto Bortolotti, MD

Reply
Brian J. deGuzman, MD, and Lawrence H. Cohn, MD

- 1511 Aortic Dissection During Pregnancy**
Tsung O. Cheng, MD

Reply
Clark J. A. M. Zeebregts, MD, and Marc A. Schepens, MD, PhD

- 1512 Is the Elephant Trunk Technique Really Necessary for Extensive Arch Aneurysm?**
Shiro Sasaguri, MD, and Tomonobu Fukuda, MD

Reply
Lars G. Svensson, MD, PhD

- 1513 Hybrid MIDCABG and Balloon Angioplasty for Multivessel Coronary Artery Disease**
 Mohammad Bashir Izzat, FRCS(CTh), Anthony P. C. Yim, MD, and M. Hazem El-Zufari, MD

Reply

Michael J. Mack, MD

- 1515 Hemivertebrectomy for Apical Chest Tumors: Is the Risk Justified by the Outcome?**
 Lorenzo Spaggiari, MD, PhD, Michele Rusca, MD, Paolo Carbognani, MD, PhD, and Piergiorgio Solli, MD

Reply

Dominique H. Grunenwald, MD

- 1517 Pseudoaneurysm of the Septal Branch in Coronary Artery Bypass Grafting on the Beating Heart**
 Munemoto Endoh, MD, Toshiya Ohtsuka, MD, Tadasu Kohno, MD, Yutaka Kotsuka, MD, and Shinichi Takamoto, MD

Reply

Saad Jaber, MD, Paul Spence, MD, and Sebastian Pagni, MD

REVIEW OF RECENT BOOKS

- 1295 Pediatric Cardiopulmonary Transplantation, edited by Kenneth L. Franco, MD**
 John M. Armitage, MD

ANNOUNCEMENTS

- A-41, 42 Information for Authors
 A-43 Guidelines for the Submission of Electronic Manuscripts
 A-47-49 Events of Interest
 A-50 Forthcoming Articles
 1254 Important Announcement
 1341 The Society of Thoracic Surgeons: Thirty-fifth Annual Meeting
 1359 Notice From the Southern Thoracic Surgical Association
 1387 Important Announcement for Authors
 1470, 1476 Notice From the American Board of Thoracic Surgery
 1478 Discussion Groups on the Internet
 1491 *The Annals of Thoracic Surgery* Cumulative Index
 A-51 Information About Membership in The Society of Thoracic Surgeons
 A-52, 53 Call for Abstracts, The Society of Thoracic Surgeons
 A-54 Disclosure Form for Presenters and Authors
 A-55, 56 Classified Advertisements
 A-66 Index to Advertisers
-

Number 6 June 1998

EDITORIAL

- 1519 The 50th Anniversary of Mitral Valve Surgery**
 W. Gerald Rainer, MD

**ORIGINAL ARTICLES:
GENERAL THORACIC**

- 1520 Long-Term Clinical Outcome After Transcervical Thymectomy for Myasthenia Gravis**
 Vera Bril, MD, Jasna Kojic, MD, Werner K. Ilse, MD, and Joel D. Cooper, MD

Invited Commentary

Francis C. Wells, FRCS

- 1523 Cytostatic Lung Perfusion by Use of an Endovascular Blood Flow Occlusion Technique**
 Markus Furrer, MD, Didier Lardinois, MD, Wolfgang Thormann, PhD, Hans-Jörg Altermatt, MD, Daniel Betticher, MD, Jürgen Triller, MD, Daniel Mettler, DVM, Ulrich Althaus, MD, Michael E. Burt, MD, PhD, and Hans-Beat Ris, MD

- 1529 Multiple Primary Cancers in Esophageal Squamous Cell Carcinoma: Incidence and Implications**
 Ronnie T. P. Poon, FRCS(Ed), Simon Y. K. Law, FRCS(Ed), Kent-Man Chu, FRCS(Ed), Frank J. Branicki, FRACS, and John Wong, FACS(Hon)

Invited Commentary

Mark B. Orringer, MD

ORIGINAL ARTICLES: CARDIOVASCULAR

- 1535 Minimally Invasive Valve Operations**
Delos M. Cosgrove III, MD, Joseph F. Sabik, MD,
and José L. Navia, MD
- 1540 Therapeutic Angiogenesis With
Basic Fibroblast Growth
Factor: Technique and Early Results**
Frank W. Sellke, MD, Roger J. Laham, MD,
Elazer R. Edelman, MD, PhD, Justin D.
Pearlman, MD, PhD, and Michael Simons, MD
- 1545 Risk of Reoperative Valve Replacement
for Failed Mitral and Aortic Bioprostheses**
Cary W. Akins, MD, Mortimer J. Buckley, MD,
Willard M. Daggett, MD, Alan D. Hilgenberg,
MD, Gus J. Vlahakes, MD, David F. Torchiana,
MD, and Joren C. Madsen, MD
- 1553 The Ross Procedure: Shorter Hospital
Stay, Decreased Morbidity, and Cost Effective**
James Jagers, MD, John K. Harrison, MD,
Thomas M. Bashore, MD, Robert D. Davis, MD,
Donald D. Glower, MD, and Ross M.
Ungerleider, MD
- 1559 Intermittent Antegrade Tepid Versus
Cold Blood Cardioplegia in
Elective Myocardial Revascularization**
Andrew C. Fiore, MD, Marc T. Swartz, BA,
Robert Nevett, MD, Paul J. Vieth, CCP, Robert A.
Magrath, CCP, Adam Sherrick, CCP, and
Hendrick B. Barner, MD
- 1566 Is Atrial Fibrillation Resulting From
Rheumatic Mitral Valve Disease a
Proper Indication for the Maze Procedure?**
Johji Fukada, MD, Kiyofumi Morishita, MD, PhD,
Kanshi Komatsu, MD, PhD, Hiroki Sato, MD,
PhD, Chikara Shiiku, MD, Satoshi Muraki, MD,
Masaru Tsukamoto, MD, and Tomio Abe, MD,
PhD
- Invited Commentary*
James L. Cox, MD
- 1571 Lethal Postoperative
Coronary Artery Spasm**
Hugh S. Paterson, FRACS, Michael W. Jones,
FRACR, Douglas K. Baird, FRACS, and Clifford
F. Hughes, FRACS
- 1574 Risk Factors for Death After Heart
Transplantation: Does a
Single-Center Experience
Correlate With Multicenter Registries?**
James F. McCarthy, FRCSI, Patrick M. McCarthy,
MD, Malek G. Massad, MD, Daniel J. Cook, PhD,
Nicholas G. Smedira, MD, Vigneshwar Kasirajan,
MD, Marlene Goormastic, MPH, Kathy
Hoercher, MS, and James B. Young, MD
- Invited Commentary*
Jeffrey D. Hosenpud, MD
- 1580 Terminal Warm Blood Cardioplegia
Improves Cardiac Function
Through Microtubule Repolymerization**
Hironori Tenpaku, MD, Koji Onoda, MD, Kyoko
Imanaka-Yoshida, MD, Toshimichi Yoshida, MD,
Takatsugu Shimono, MD, Hideto Shimpō, MD,
and Isao Yada, MD
- 1588 Hyperglycemia During
Normothermic Cardiopulmonary
Bypass: The Role of the Kidney**
Hal Braden, MD, Surinder Cheema-Dhadli,
PhD, C. David Mazer, MD, David J. McKnight,
MD, William Singer, MD, and Mitchell L.
Halperin, MD
- 1594 Left Main Coronary Artery Patch
Angioplasty: Midterm
Experience and Follow-up
With Spiral Computed Tomography**
Juan Meseguer, MD, Aquilino Hurlé, MD,
Francisco Fernández-Latorre, MD, Sergio Alonso,
MD, Patricio Llamas, MD, and Juan A. Casillas,
MD, PhD
- Invited Commentary*
Robert A. Dion, MD
- 1599 Silent Aspiration After
Coronary Artery Bypass Grafting**
O. Brewster Harrington, MD, John K.
Duckworth, MD, Carey L. Starnes, BSN, Patricia
White, MA, Lynn Fleming, MS, Stephen B.
Kritchevsky, PhD, and Rexann Pickering, MSN
- 1604 Apoptosis Is Involved in Acute
Cardiac Allograft Rejection in Rats**
Yoshihiko Kageyama, MD, Xiao-Kang Li, MD,
Seiichi Suzuki, MD, Hidetoshi Suzuki, MD,
Kazuya Suzuki, MD, Teruhisa Kazui, MD, and
Yukio Harada, MD
- 1610 Myocardial Distribution of Antegrade Cold
Crystalloid and Tepid Blood Cardioplegia**
Ignacio G. Duarte, MD, Steven T. Shearer, BS,
Malcolm J. MacDonald, MD, John Parker Gott,
MD, W. Morris Brown III, MD, Jakob Vinten-
Johansen, PhD, and Robert A. Guyton, MD

- 1617 Levels of Troponin I and Cardiac Enzymes After Reinfusion of Shed Blood in Coronary Operations**
Ruggero De Paulis, MD, Luisa Colagrande, MD, Francesco Seddio, MD, Marco Piciché, MD, Alfonso Penta de Peppo, MD, Carlo Bassano, MD, Fabrizio Tomai, MD, and Luigi Chiariello, MD
- 1621 Atrial Natriuretic Peptide-Induced Release of Cyclic Guanosine Monophosphate by Coronary Bypass Grafts**
Johannes Bonatti, MD, Wolfgang Dichtl, MD, Erika A. Dworzak, MD, Herwig Antretter, MD, Felix Unger, MD, Bernd Puschendorf, MD, and Otto E. Dapunt, MD
Invited Commentary
Amer Chaikhouni, MD
- 1625 HeartMate Left Ventricular Assist Device as Bridge to Heart Transplantation**
Bansi Koul, MD, PhD, Jan-Otto Solem, MD, PhD, Stig Steen, MD, PhD, Henrik Casimir-Ahn, MD, PhD, Hans Granfeldt, MD, and Urban J. Lönn, MD
- 1631 Discrepancies Between Sizer and Valve Dimensions: Implications for Small Aortic Root**
Claus Bartels, MD, Rainer G. Leyh, MD, J. F. Matthias Bechtel, MD, Elrina Joubert-Hübner, CTP, and Hans-Hinrich Sievers, MD, PhD
- 1634 Reversibility of Cardiac Dysfunction After Valve Replacement in Elderly Patients With Severe Aortic Stenosis**
Masafumi Natsuaki, MD, Tsuyoshi Itoh, MD, Shinji Tomita, MD, and Kozo Naito, MD
- 1639 Significance of Serum S100 Release After Coronary Artery Bypass Grafting**
Henrik Jönsson, MD, Per Johnsson, MD, PhD, Christer Alling, MD, PhD, Stephen Westaby, FRCS, and Sten Blomquist, MD, PhD
- 1645 Cerebral Emboli and Serum S100 β During Cardiac Operations**
Hilary P. Grocott, MD, Narda D. Croughwell, CRNA, David W. Amory, MD, PhD, William D. White, MPH, Jerry L. Kirchner, BS, and Mark F. Newman, MD
Invited Commentary
David P. Taggart, MD(Hons)
- 1651 Cardiotomy Suction: A Major Source of Brain Lipid Emboli During Cardiopulmonary Bypass**
Robert F. Brooker, MD, William R. Brown, PhD, Dixon M. Moody, MD, John W. Hammon, Jr, MD, David M. Reboussin, PhD, Dwight D. Deal, BS, Hani S. Ghazi-Birry, MD, PhD, and David A. Stump, PhD
- 1656 Posterior Distribution of Infarcts in Strokes Related to Cardiac Operations**
Denise Barbut, MD, Dominique Grassineau, MD, Eric Lis, MD, Linda Heier, MD, Gregg S. Hartman, MD, and O. Wayne Isom, MD
- 1660 Biomechanical Study of Sternal Closure Using Rigid Fixation Techniques in Human Cadavers**
Wayne Ozaki, MD, Steven R. Buchman, MD, Mark D. Iannettoni, MD, and Elizabeth P. Frankenburg, BS
- 1666 Radiofrequency and Cryoablation of Atrial Fibrillation in Patients Undergoing Valvular Operations**
Mien-Cheng Chen, MD, G. Bih-Fang Guo, MD, PhD, Jen-Ping Chang, MD, Kuo-Ho Yeh, MD, and Morgan Fu, MD
- 1673 Bilateral Thoracoscopic Minimally Invasive Direct Coronary Artery Bypass Grafting Using Internal Thoracic Arteries**
Go Watanabe, MD, Takuro Misaki, MD, Keijyu Kotoh, MD, Akio Yamashita, MD, and Katsushi Ueyama, MD, PhD
- 1676 Effects of Cardiomyoplasty on Right Ventricular Filling During Volume Loading**
Yoshiya Toyoda, MD, Masayoshi Okada, MD, Mohammed Abul Kashem, MD, and Tomoichiro Mukai, MD
- 1680 Postischemic Function and Protein Kinase C Signal Transduction**
Thomas J. Rohs, MD, Kenneth S. Kilgore, PhD, Anthony J. Georges, MD, and Steven F. Bolling, MD
- 1685 Expression of Vascular Adhesion Molecules in Saphenous Vein Coronary Bypass Grafts**
Adrian H. Chester, PhD, Karen J. M. Morrison, PhD, and Magdi H. Yacoub, FRCS
- 1690 The Role of Platelet-Activating Factor in Regional Myocardial Ischemia-Reperfusion Injury**
A. Karim Qayumi, MD, PhD, John C. English, MD, David V. Godin, PhD, David M. Ansley, MD, Eric B. Loucks, BSc, John U. Lee, MD, PhD, and Cei-Whan Kim, BSc
- 1698 Total Simultaneous Repair of Coarctation and Intracardiac Pathology in Adult Patients**
Rohinton J. Morris, MD, Louis E. Samuels, MD, and Stanley K. Brockman, MD
- 1703 Cerebral and Systemic Embolization During Left Ventricular Support With the Novacor N100 Device**
Christof Schmid, MD, Michael Weyand, MD, Darius G. Nabavi, MD, Dieter Hammel, MD, Mario C. Deng, MD, Erich B. Ringelstein, MD, and Hans H. Scheld, MD

1711 Improvement in Esophageal Varices and Liver Histology

Postoperatively in Budd-Chiari Syndrome

Yukio Kuniyoshi, MD, Kageharu Koja, MD, Mituru Akasaki, MD, Kazufumi Miyagi, MD, Mituyoshi Shimoji, MD, Manabu Kudaka, MD, and Tooru Uezu, MD

1715 Complement Activation and Cytokine Generation After Modified Fontan Procedure

Richard D. Mainwaring, MD, John J. Lamberti, MD, and Tony E. Hugli, PhD

Invited Commentary

Marie-Christine Seghaye, MD

1721 Clinical Results of the Staged Fontan Procedure in High-Risk Patients

Munetaka Masuda, MD, Hideaki Kado, MD, Yuichi Shiokawa, MD, Kouji Fukae, MD, Masao Suzuki, MD, Eiji Murakami, MD, and Hisataka Yasui, MD

Invited Commentary

Frank L. Hanley, MD

1726 Pulmonary Root Replacement With the Freestyle Stentless

Aortic Xenograft in Growing Pigs

Paul H. Schoof, MD, Mark G. Hazekamp, MD, PhD, Han H. van Krieken, MD, PhD, and Hans A. Huysmans, MD, PhD

1730 Brain Damage and Myocardial Dysfunction: Protective Effects of Magnesium in the Newborn Pig

Joseph Caspi, MD, John G. Coles, MD, Lee N. Benson, MD, and Gregory J. Wilson, MD

1737 Truncal Valve Repair:

Initial Experience in Neonates

Michael D. Black, MD, Ian Adatia, MD, and Robert M. Freedom, MD

Invited Commentary

Francisco J. Puga, MD

1741 Superior Hydrodynamics of a Modified Cavopulmonary

Connection for the Norwood Operation

Hans-Hinrich Sievers, MD, PhD, Anja Gerdes, MD, Jörg Kunze, MSc, and Gerd Pfister, PhD

1746 Growth of the Subclavian Artery and the Anastomosis in Blalock-Taussig Shunt: Absorbable Versus Nonabsorbable Suture

Naoki Yoshimura, MD, Masahiro Yamaguchi, MD, Hidetaka Ohashi, MD, Yoshihiro Oshima, MD, Yoshiya Toyoda, MD, Hee-Nam Chung, MD, and Kyoichi Ogawa, MD

Invited Commentary

John A. Hawkins, MD

1751 Coarctation Repair: Modification of End-to-End Anastomosis

With Subclavian Flap Angioplasty

Hagop Hovaguimian, MD, V. Senthilnathan, FRCS, John P. Iguidbashian, MD, David M. McIrvine, MD, and Albert Starr, MD

1755 Tricuspid Annuloplasty and Ventricular Plication for Ebstein's Malformation

Florentino J. Vargas, MD, Gustavo Mengo, MD, Miguel A. Granja, MD, Jorge A. Gentile, MD, Maria E. Rannzini, MD, and Juan C. Vazquez, MD

1758 Late Results and Reintervention After Aortic Valvotomy for Critical

Aortic Stenosis in Neonates and Infants

John A. Hawkins, MD, L. LuAnn Minich, MD, Lloyd Y. Tani, MD, Ronald W. Day, MD, Victoria E. Judd, MD, Robert E. Shaddy, MD, and Edwin C. McGough, MD

Invited Commentary

Ralph S. Mosca, MD

CASE REPORTS

1764 Temporary Aorto-Pulmonary Shunt for Pulmonary

Hypertension After Truncus Arteriosus Repair

Takahiro Katsumata, MD, Amihay Shinfeld, MD, and Stephen Westaby, FRCS

1766 Right Atrial Isolation for Atrial Fibrillation

Associated With Atrial Septal Defect

Atsushi Harada, MD, Takao Ida, MD, and Masatoshi Ikeshita, MD

1768 Biatial Myxoma: A Rare Cardiac Tumor

John L. Peachell, MD, John C. Mullen, MD, Michael J. Bentley, BSc, and Dylan A. Taylor, MD

1770 Surgical Management of Tricuspid Atresia and Anomalous Left Brachiocephalic Vein

Theodore C. Koutlas, MD, Gil Wernovsky, MD, Michael C. Slack, MD, Paul M. Weinberg, MD, and Thomas L. Spray, MD

1772 Lung Herniation Secondary to Minimally Invasive Direct

Coronary Artery Bypass Grafting

Ramzi K. Deeik, MD, Muhammed Ashraf Memon, MBBS, and Jeffrey T. Sugimoto, MD

1774 Minimally Invasive Bilateral

Internal Mammary Artery Bypass Grafting

Vassilios Guliemos, MD, Markus Dangel, MD, and Stephan Schüler, MD

- 1776 Large Eventration of Diaphragm in an Elderly Patient Treated With Emergency Plication**
Shun-ichi Watanabe, MD, Shinji Shimokawa, MD, Mikio Fukueda, MD, Tamahiro Kinjo, MD, and Akira Taira, MD

- 1777 A Pedunculated Intraluminal Foregut Reduplication Cyst of the Proximal Esophagus**
Stewart R. Craig, FRCS, William H. A. Wallace, MRCPATH, D. John Scott, FRCR, and Evan W. J. Cameron, FRCS

- 1778 Extubation of the Patient After a Difficult Intubation**
Vijay Kumar, MD, and Harold L. Lazar, MD

- 1780 Repair of Aortico-Left Ventricular Tunnel Originating From the Left Aortic Sinus**
Guido Michielon, MD, Carlo Sorbara, MD, and Dino Carlo Casarotto, MD

- 1783 Anastomosis of the Left Juxtaposed Atrial Appendages in a Patient With Tricuspid Atresia**
Yukihiro Kaneko, MD, Hideo Okabe, MD, Nobuhiro Nagata, MD, Jotaro Kobayashi, MD, and Shinya Kanemoto, MD

- 1784 Surgical Treatment of Lipomatous Hypertrophy of the Interatrial Septum**
Julian J. Alcocer, MD, William E. Katz, MD, and Brack G. Hattler, MD, PhD

- 1786 Needle Embolus Causing Cardiac Puncture and Chronic Constrictive Pericarditis**
Scott A. LeMaire, MD, Matthew J. Wall, Jr, MD, and Kenneth L. Mattox, MD

- 1788 Repair of Mitral Valve and Subaortic Mycotic Aneurysm in a Child With Endocarditis**
Michael W. Frank, MD, Constantine Mavroudis, MD, Carl L. Backer, MD, and Albert P. Rocchini, MD

- 1790 The Large Window Ductus: A Surgical Trap**
Jürg Grünenfelder, MD, Ulrike Bartram, MD, Richard Van Praagh, MD, Kevin E. Bove, MD, Warren W. Bailey, MD, Richard A. Meyer, MD, Peter R. Koenig, MD, Angel R. Perez, MD, and David C. Schwartz, MD

- 1792 Fungal Purulent Constrictive Pericarditis in a Heart Transplant Patient**
Charles C. Canver, MD, Ashvin K. Patel, MD, Peter Kosolcharoen, MD, and Marta C. Voytovich, MD

HOW TO DO IT

- 1795 A Surgical Method for Selecting Appropriate Size of Graft in Aortic Root Remodeling**
Kiyofumi Morishita, MD, PhD, Tomio Abe, MD, PhD, Johji Fukada, MD, Hiroki Sato, MD, PhD, and Chikara Shiiku, MD

- 1797 Proximal Aortic Control in Traumatic Rupture of the Thoracic Aorta**
Thomas E. Williams, Jr, MD

- 1798 Performance of a Safe Proximal Anastomosis in Aortic Dissection**
René Prêtre, MD

- 1800 Cartilage Folding Method for Main Bronchial Stapling**
Teruhiro Aoki, MD, Yuichi Ozeki, MD, Masazumi Watanabe, MD, and Susumu Tanaka, MD

- 1802 Use of an Ultrasonic Scalpel as an Alternative to Electrocautery in Patients With Pacemakers**
Michael R. Epstein, MD, John E. Mayer, Jr, MD, and Brian W. Duncan, MD

- 1805 The "Annular Sandwich": A Simple Method of Reinforcing a Friable Mitral Valve Annulus**
Stewart R. Craig, FRCS, and William S. Walker, FRCS

- 1807 A Method for Perfusion of the Leg During Cardiopulmonary Bypass via Femoral Cannulation**
Steven C. Hendrickson, MD, and Donald D. Glower, MD

OUR SURGICAL HERITAGE

- 1809 The Birth of Intracardiac Surgery: A Semicentennial Tribute (June 10, 1948-1998)**
Julio C. Dávila, MD

CURRENT REVIEW

- 1821 Positron Emission Tomography in Lung Cancer**
Val J. Lowe, MD, and Keith S. Naunheim, MD

UPDATE

- 1830 Experimental Study of a New Porous Tracheal Prosthesis**
R. Guijarro Jorge, MD, A. Cantó Armengod, MD, and J. M. Galbis Caravajal, MD

FOUNDATION REPORT

- 1832 Report on "Understanding
the New World of Health Care"

CORRESPONDENCE

- 1833 The Surgical Meeting as Infomercial
Lawrence H. Cohn, MD

- 1833 Mitral Valve Myxoma
Hiroshi Izumoto, MD, Junya Kamata, MD, and
Kohei Kawazoe, MD

Reply

David P. Murphy, MD

- 1834 Coronary Artery Bypass
Grafting: Three-Day Discharge
Inderjit S. Gill, FRCS(C)

Reply

Richard A. Ott, MD

- 1835 Inflammatory Aneurysm
or Takayasu's Disease?
Allen Burke, MD, and Renu Virmani, MD

Reply

Leonard N. Girardi, MD, and Joseph S. Coselli,
MD

- 1836 Homograft and SVC Syndrome
J. Rodrigo Oyarzun, MD, and John R.
McCormick, MD

Reply

Sunil K. Ohri, FRCS, and Edward R. Townsend,
FRCS

- 1837 Tracheobronchial Laceration After Double-
Lumen Intubation for Thoracic Procedures
Lorenzo Spaggiari, MD, PhD, Michele Rusca,
MD, Paolo Carbognani, MD, PhD, and
Piergiorgio Solli, MD

Reply

Gilbert Massard, MD, Jean-Gustave Hentz, MD,
and Jean-Marie Wihlm, MD

- 1839 Removal of Swan-Ganz Catheter via a
Small Right Anterior Mediastinotomy
Aurangzeb K. Duranni, FRCS, Robert T.
Grignani, and Eugene K. W. Sim, FRCS

- 1840 Mitral Valve Reconstruction
Tsung O. Cheng, MD

- 1840 Total Preservation of Subvalvular
Apparatus During Mitral Valve Replacement
Neeraj Mediratta, FRCS, and Andrzej W.
Sosnowski, MD

Reply

Joong H. Choh, MD

- 1841 Ultrasound Detection of
Diaphragmatic Paralysis
After Cardiac Operations
Naoki Yahagi, MD, Yasuhiko Watanabe, MD,
and Keiji Kumon, MD

- 1841 Reduced Complication Rate in
Bilateral Mammary
Artery-to-Coronary Artery Bypass Grafting
Mauro Cassese, MD, Giovanni Speziali, MD,
Gian Luca Martinelli, MD, and Marco Diena, MD

ANNOUNCEMENTS

- A-36 Forthcoming Articles
- A-37, A-38 Information for Authors
- A-39 Guidelines for the
Submission of Electronic Manuscripts
- A-40-42 Events of Interest
- 1528 The Society of Thoracic
Surgeons: Thirty-fifth Annual Meeting
- 1558 Important Announcement for Authors
- 1570 Notice From the Southern
Thoracic Surgical Association
- 1573 Important Announcement
- 1644, 1730 Notice From the American
Board of Thoracic Surgery
- 1729 Discussion Groups on the Internet
- 1804 *The Annals of Thoracic Surgery*
Cumulative Index
- A-43 Information About Membership
in The Society of Thoracic Surgeons
- A-44, A-45 Call for Abstracts, The
Society of Thoracic Surgeons
- A-46 Disclosure Form for
Presenters and Authors
- A-47, A-48 Classified Advertisements
- A-52 Index to Advertisers

INDEX TO VOLUME 65

- 1843 Author Index
- 1873 Subject Index

Number 6 June 1998 (Suppl)

- S29 Introduction**
William J. Greeley, MD
- S31 The Bayer 022 Compassionate-Use Pediatric Study**
Robert F. Coniff, MD
- S35 Effects of Cardiopulmonary Bypass and Use of Modified Ultrafiltration**
Ross M. Ungerleider, MD
- S40 Review of Efficacy Parameters**
Philippe Pouard, MD
- S45 Activation of Hemostasis During Cardiopulmonary Bypass and Pediatric Aprotinin Dosage**
Hansjörg Mössinger, MD, and Wulf Dietrich, MD
- S52 Pharmacoeconomics Analysis in a Pediatric Population**
Celia C. D'Errico, DO
- S56 Endothelial-Related Coagulation in Pediatric Surgery**
Joachim Boldt, MD
- S60 Incidence of Hypersensitivity Reactions**
Wulf Dietrich, MD
- S65 Neurologic Sequelae Associated With Deep Hypothermic Circulatory Arrest**
Paul R. Hickey, MD
- S71 Use of Aprotinin in Pediatric Organ Transplantation**
Thomas L. Spray, MD
- S74 Consensus Discussion on Trasylol Use in Pediatric Surgery: Current Knowledge**

